

**Goody two-shoes
or a monument to industry?
Aspects of the *Phycologia Britannica*
of William Henry Harvey
(1811 to 1866)**

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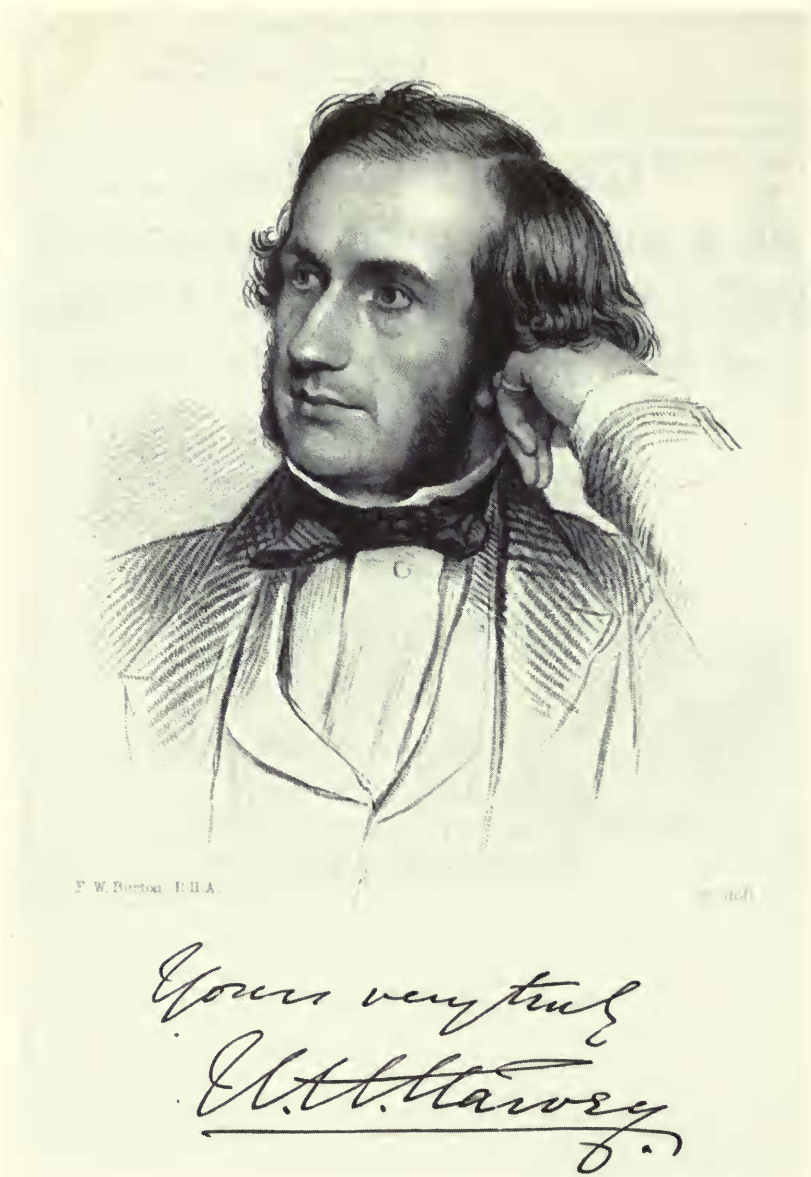


Plate 1 The younger Harvey (aet. 40). Portrait, intended for publication in association with the 'second edition' (1849) of the 'Manual', but delayed due to Harvey's absence in USA and finally issued (1851) against the signed return of the Publisher's notice (dated 20/12/49), inserted in the 'Manual' as released.

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Notes on Manuscript Sources

Throughout the text, sources of particular quotations are cited in conjunction with the quotation itself. The locations of particular correspondence collections involved in the letters quoted are as follows:

1. The correspondence, incoming and outgoing, of W. J. Hooker, is principally housed in the Archives Room, Library of the Royal Botanic Gardens, Kew.
2. The correspondence, incoming and outgoing, of J. D. Hooker is similarly housed as that of his father, in the Archives Room, Kew.
3. The M. J. Berkeley Correspondence Collection is housed in the library of the Department of Botany, British Museum (Natural History), London, SW7 5BD.
4. The C. E. Broome Correspondence Collection is housed in the library of the Department of Botany, British Museum (Natural History), London, SW7 5BD.
5. The Lovell Reeve Archive Collection, which includes the Letter Book (Drafts) for 1847–1872, to which much reference is made, is held in the Archives Room, Library of the Royal Botanic Gardens, Kew.

I. Introduction

William Henry Harvey (Plates 1 & 2) was one of the major figures in British, and indeed world-wide, phycology in the middle years of the nineteenth century. General assessments of the significance of the man and his work have been produced at intervals over recent years, perhaps the best known and most useful being those by Praeger (1913), Papenfuss (1976) and Webb (1966). Whatever is thought of Harvey's standing as an original scientific mind, all authorities have agreed without reservation as to his industry and application. There can have been few workers, even in those eras of passionate belief in one's own activities, that manifest greater self-sacrifice (not so regarded by them!) and commitment than Harvey. Snippets throughout his correspondence with colleagues and friends continually attest to this, in terms of both frustration when obstacles completely prevented desired activity patterns, and explanations of life-style when such obstacles were not insurmountable. An example of the latter in circumstances wherein commitments exceeded available time occurs in his letter of 22 April 1846, to Joseph Hooker, in the earlier phases of production of *Phycologia Britannica*: 'I was up & down at ¼ past 5 this morning, and killed 3 Polysiphoniae before breakfast.'

The main title of this paper may demand some explanation, particularly for non-British readers or for those not quite as aged as the present author. It is, in fact, virtually a quotation from Harvey himself and the full context can be read on reference to Harvey's letter (pp. 121–22) of 'Easter Evening' of 1846 to Joseph Hooker:

It pains me to look at the 4th. number, which is turned out more like a child's 6^d toy book—Goody two shoes or the like—than like an "opus magnum" as it ought to be.

The style of paragraph 1 of that letter is completely consonant with Harvey's quirky sense of humour and the titular use of his words is therefore wholly appropriate. I will leave the reader of this paper to decide in which of the categories he believes Harvey's work to lie; my own opinion will become abundantly clear from the text that follows.

Even before the involvement with *Phycologia Britannica*, Harvey had fairly similar tendencies to over-full patterns of work. He wrote on 17 June 1844 (to an unstated recipient; Fisher, 1869: 147):

I am as busy as a bee these times, and now steal an hour of the night to write this hurried note. I rise at five A.M., or before it, and work till breakfast-time (half-past eight) at the 'Antarctic Algae.' Directly after breakfast I start for the College, and do not leave it till five o'clock in the evening. Again at plants till dusk. I am writing on the 'Antarctic Algae,' and arranging the Herbarium, and have been working at Coulter's Mexican and Californian plants. I have free range of the Library, to go there and poke into any hole and corner I like.

The *Phycologia Britannica* was completed well over a hundred and thirty years ago; it remains, albeit dated, a standard work of reference on the marine algae of the British Isles. Some of the plates are still unsurpassed as coloured illustrations of detailed gross morphology, although the overall final production was somewhat variable. These plates were lithographic, prepared initially by Harvey. Webb (1966: 40) considered them to 'exhibit no great artistic sensitivity' [hardly important, since that was not their purpose], but added 'they are cleanly and accurately executed, and they show, besides the general form, as much of the detailed anatomy as could be ascertained by the rather primitive microscopes of his day'. Fifty years and more after their publication, the plates were still causing comment such as '... c'est l'ouvrage le plus important, pour les figures des Algues, de notre région' (van Heurck, 1908).

Even Webb (1966: 40) indicated of the *Phycologia* that 'although the lapse of 120 years has rendered it very seriously out of date, [it] is still the best book for a student learning to name his seaweeds, and is sought on the second-hand market not, like most illustrated works of its period, as a connoisseur's piece, but as a working manual'. With the phenomenal increases in costs of second-hand books over the years since Webb's statement, it has become virtually



Your ever affy
J. E. Harvey

Plate 2 Harvey, the advancing years. Portrait published in [Fisher], 1869.

impossible for the individual newly to acquire a copy of the book purely for working purposes, although it is still sought by well-funded libraries and by individuals seeking secure investment.

Since the *Phycologia Britannica* remains to this day such an interesting and important work, it is surprising that, apart from imprecise details of publication dates previously reported (Setchell & Gardner, 1920: 313), no more comprehensive bibliographic and historical treatment has been attempted until very recently (Price, 1984). Even there and in the present study, some facets of the original production are hardly touched on. One of these is the length of the print-run in connection with all the versions, plates and text. My information is still so very incomplete in that matter that I have not thought it worth including at all for now. When and if more definitive data can be established, I will publish further as a supplementary treatment.

The publication dates (Price, 1984) of the individual numbers of this part-work are sometimes especially important since, as the work was produced over such a long period and in parallel with other texts, it is not always clear which of Harvey's various publications first carried data, nor whether he or other authors were the first to notice matters in print. A considerable step toward accurate comparative dating was provided in Price (1984); the latter paper and the present text together deal with most major aspects, historical and bibliographic, of Harvey's principal work on British benthic marine macroalgae.

Harvey himself, in the 'Advertisement' dated 3 December 1845, explained something of the circumstances leading to the publication of *Phycologia Britannica*, and of the rationale behind its mode of publication; the 'Advertisement' was published with volume I of the work, as issued both when completed and when the whole work was finished in 1851, and can be confirmed as having been distributed with the first part of the work, as originally issued

separately. This confirmation derives from a copy of Part 1, still in its original wrappers and kindly brought to my notice initially by Mr H. K. Swann of Wheldon & Wesley Ltd. In essence, Harvey indicated that primarily he wished to accompany the descriptions given in his *Manual of British Algae* (1841) with illustrative plates. However, since the latter work was published on the eve of his last voyage to the Cape of Good Hope (a mistake on Harvey's part—it was actually published *during* his third period, (27 July–) 5 October 1840 to ?end 1841 (–c. 17 February 1842) in Capetown), when he had been but a short time in Europe, that had not proved possible and he had so stated in the text of the *Manual*. After his return from the Cape, he was frequently asked to implement his partial promise to provide illustrations, either through an enlarged (new) *Manual*, or through an entirely new, larger work. He (at that time) preferred the latter course and subsequently decided to add, to the last volume, a general 'Introduction to Marine Botany' and a 'Systematic Synopsis'. In the event, both a revised *Manual* (1849)* and the entirely new larger work (*Phycologia*) were in due course produced.

One plausible explanation has been advanced to account for Harvey's expressed (1845) preference for an entirely new work. Mrs [M.] Gatty (in Fisher, 1869: 221) stated that:

He [Harvey] revised and corrected all the proofs of the 'British Seaweeds' [by Mrs Gatty and based essentially on *Phycologia Britannica*] many years afterwards. And this in spite of his almost morbid dislike to going over old ground a second time. But for which feeling, indeed, we might have had a revised edition of his 'Manual', † a boon to the public which it was almost cruel on his part to withhold.

Harvey had reasoned that it was possible to restrict the projected illustrative work to macroscopic benthic marine algae, since Hassall's *A History of the British Freshwater Algae*, then recently (20 September 1845) published, and work by John Ralfs, than in progress, eliminated the need for treatment of the fresh-water algae, desmids and diatoms.

From other statements, Harvey seems to have had two possible plans in mind for the arrangement of the work. He initially considered a systematic order from lowest to highest forms, or vice versa, as the most obvious way to go about things if the work were to be issued as a whole from the Press. However, since this project, in common with many other comprehensive eighteenth and nineteenth century works, gelled as an extensive treatment in parts (to be issued in this case over five years), the objection to the systematic order was largely that it would prevent the introduction or early publication of new species. The second plan, and the one finally adopted for the primary version of *Phycologia Britannica*, was that a selection of species, from several different genera taken from as many families so that there should always be a variety of subjects in each monthly number, should be illustrated together. This plan was modified by the reservation that, as early as possible in the work, at least one species from every genus should be figured; the aim was to place 'before the student' illustrations of all the genera by the end of the twentieth number, projected to complete the first volume of the collated parts. In the interim, the general arrangement of the *Manual* (1841) was intended to serve as a synopsis of the main contents of *Phycologia Britannica*. In talking here thus of systematics, incidentally, it is worth mentioning that for ease of reference, and because in general little or no equivocation is thus involved, the nomenclature employed by Harvey as to species names has been maintained throughout the present study.

Harvey recognized at this stage that the principal objection to the proposed system was that purchasers wishing to have copies bound in systematic order would have to defer the binding of the work until publication was complete. These direct statements, and the additional requests for specimens of rarer British algae to be sent to him by people from all parts of the coast to complete the work, show clearly that Harvey's inclination (and in the end his contractual commitment) was always to produce such a text in parts over a long period.

*The 1841 *Manual* was finally revised and up-dated (1849) during the run of *Phycologia Britannica*, then being illustrated with similar but smaller figures.

† Presumably Mrs Gatty was here referring to a possible further revision of the 1849 work.

II. Content and Arrangement

A continuous textual treatment of the content and arrangement of this most complex work would have been turgid to construct, to read, and to handle as a data source. Accordingly, the synoptic treatment (Table I) has been adopted and presented here as much the more useful from all points of view. Read in conjunction with the table of part-dating presented in Price (1984), it provides ready access to all major comparative and identificatory characteristics of parts and constituent plates normally required. Without total sight of all copies of the work, in whatever form, still extant and accessible, this table can hardly be claimed as absolutely comprehensive; such would be an impossible task. I believe, however, that the presentation is sufficiently complete to provide answers to all those questions commonly requiring to be posed about the work and, in so far as correspondence and similar sources reveal them, the detailed text adds the perspectives on the states of mind of, and particular significance of additional remarks made by, its author. In this context, bear in mind the greater sophistication of approach, and vastly greater wealth of data on particular taxa, achieved by the end of the work in 1851 than at its beginning in 1846.

Neither this section, nor the Table (I) which forms its primary basis, seeks to highlight every nuance of slight variation between different versions of content—that would be neither possible nor desirable. The Table aims to establish, so far as they can be deduced, general characteristics of variation across different forms of the text. Colour variations in printing between copies or printings of the plates are occasionally mentioned (but more detailedly and specifically in Appendix IV) where they appear of critical importance; the latter is rare. Individual cases of otherwise misleading textual variation *are* examined where they seemed to the present author to be of some significance; the choice may sometimes appear (and may well be!) a trifle arbitrary, reflecting often as much the availability of data as the realities of assessed critical importance. I would be grateful for data on additional cases known to others with access to critical information that has escaped me. The size of the task in attempting to be complete on a work of this complexity and range will be clear to all those who have undertaken similar work. At least sufficient information is presented here, in text or tabular data or both, to distinguish on general or specific grounds between all known versions of the text for all individual species covered by Harvey's publication.

In the Table, it will be seen that (of the text versions) 'A' always refers to that shown, known, or deduced, to be the earliest published. The basis for that knowledge or deduction derives from examination of an authentic early 3-volume version always maintained as such (now in the British Museum (Natural History)); from a large number (virtually 50% of the whole work) of parts intact in their original wrappers, or with original wrappers still enclosing a proportion of the original part content; and from contemporary or near-contemporary external sources of data, such as original correspondence, draft letters, reviews of the day, remaindered copies of text versions for the species, and so on. Details of sources are given in the text or in notes, where it seemed possible that others may wish to pursue matters further; I will be happy to supply details on any sources not identifiable from the present text.

The relationships between versions A, B, and C are therefore generally as follows. Version A is the earliest; from the remaindered text copies in my possession, it is generally easy to identify A from the overall appearance of the sheets, aside from the printed text on it. More specific differences are only very rarely absent from the original (A) cf. later (B, C) versions. Such differences are given in the last column to the right in Table I. B and C versions are more closely related than is either to A. Indeed, C is usually a straight reprint of B, prepared on smoother finish paper for market demand satisfaction at later dates. Where 'state 1', 'state 2', or similar phraseology is employed, it signifies that reprinting was carried out for some more fundamental content-change purposes than simple market demand; examples are plates 15 and 48 (see the Table and Appendix IV for detailed treatment). Neither of plates 15 or 48 was reprinted from State 1, presumably since the changes relevant occurred early enough in the currency of the work for there to have been no excessive demand at that point for the part

concerned. State 2 was reprinted for both these plates, and therefore occurs in versions A and B.

Three major general characteristics of textual layout identify the basic differences between versions of the texts (see also Plates 11 & 12). These are:

1. The size and layout of Greek lettering used in cases where the etymological derivation of generic name is so explained as to require that lettering. Version A, the primary, is *always* printed in smaller script than all states of the subsequent printings, so far as can be traced. Italic script also used sometimes (but not always) shows differences of size and layout between versions—generally version A script is smaller and more tightly arranged than that of subsequent versions.
2. Division lines between sections of the presented text, particularly that wavy line which divides species descriptive data (the third section of each entry) from the general commentary (always that printed in the largest type-face used and the fourth section of each entry). Version A almost always differs from states of version B in the positions of line starts and finishes, and of spacing, relative to adjacent lines of the text.
3. The presence and positions of basal signatures utilized by printer and binder in arranging and making up. Signatures present on version A always at least change size, form, relative spacings, and/or overall positions on subsequent versions or states; quite often, the signature is wholly omitted from versions subsequent to the primary version A.

There are also good, but other than individually inconsistent, differences that are useful for some species entries but not for others; details of these in some cases immediately identify the version which is present and are for individual entries (species) the quickest and most certain indicators. These are so characteristic when present that they are preferentially listed in the last column in Table I. Less often listed, unless they are the only differences present and of use, are other less consistent variations such as: (i) those relating to the relative cross-page (i.e., vertical alignment) positions of major headings and the text they delimit and concern; (ii) the type-face of punctuation (often semi-colon) that follows italic script, when used—this tends to vary between versions, from the correct Roman face (commonly present in version A) to the incorrect italic face (usually in version B, all states). Line content shifts, other punctuation, and the presence or absence of accents are also of distinguishing use on some occasions and are mentioned as appropriate in the summary column to the right of Table I. In these instances, except in cases susceptible to succinct statement, reference is made merely to the type of variation present, not to its detailed content. Space was not available to allow further elaboration.

III. Aspects of the Background

Events prior to the commencement of publication

What seems to have been the original urge to produce such a work as *Phycologia Britannica* has already been mentioned in the Introduction, i.e., Harvey's feeling of the need to accompany the descriptions given in his *Manual of British Algae* (1841) with illustrative plates; in the event, this turned into a new work rather than an extension of the *Manual*. Although it is difficult at this distance in time to be sure, and indeed Harvey himself may not have been completely aware of the reality behind it, the human mind being what it is, all this may contain a large element of rationalization after the event. The reasons for so stating will emerge.

Harvey's lengthy and often intense correspondence with the Hookers, father (W.J.) and son (J.D.), is a rich source of information on the various aspects of the germination and progress of *Phycologia Britannica*; that correspondence is principally now held in the Archives Room, Royal Botanic Gardens, Kew. Harvey confided in and sought advice and help from both W. J. and J. D. Hooker to a degree much greater than appears to have been the case from letters exchanged with any other correspondents. The extent of Harvey's correspondence with the Hookers can be judged from his own nicely-phrased comment on the matter (Letters to J. D. Hooker, vol. 11, f. 19) that 'My letters follow something like incidents in the life of Solomon Grundy'!

Nevertheless, Harvey was almost similarly prolific a letter-writer to many of his contemporaries, and the rate of production seems to have kept both he and his intentions early, well and truly before those interested who mattered and/or were able to assist. On the illustrative project that finally emerged as *Phycologia Britannica*, for example, John Ralfs was already writing to M. J. Berkeley (from Penzance, Cornwall) on 30 December 1844 (Berkeley Correspondence, Vol. 10, RAL-THW) that:

I hope Mr Harvey, in his intended work, will include all the Algae as I may then have an opportunity of showing that I am willing to assist when treated fairly and know that my information will be properly acknowledged.

The latter aside is a reference to the heat being generated at that time between Ralfs and A. H. Hassall regarding Desmidiaceae data for the latter's book, then in progress.

It is probable that the form of *Phycologia Britannica* that finally emerged was very much coloured, through the medium of the close correspondence and friendship with the Hookers, as well as the eventual involvement of Lovell Reeve, by the style and manner in which there emerged the 'British Flora' plates (W. J. Hooker) and the 'Antarctic Flora' that both J. D. Hooker and, to a lesser extent, Harvey himself, were already producing. Even the usual flow of correspondence with Harvey was affected by these commitments, as is made clear in a letter from W. J. Hooker to Harvey (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832-60, f. 163) and dated 5 April [1845]:

I trust bye & bye that Joseph & I shall be a little more at liberty than we are now. The Antarctic Flora occupies all my son's time & much of my own in addition to my ordinary labors—for there is not only the text but all the drawings & plates to prepare & they say the first N^o will appear on the 1st June.

That the general process of idea germination stimulated interest in the growing *Phycologia* project in the publishing world is also clear.

The implication from available evidence in the Harvey-Hookers correspondence so far examined is that the materialized form of the *Phycologia Britannica* concept must have arisen as a fairly direct result of discussions that appear to have begun in or before early 1845 between Harvey and his friend, the publisher John Van Voorst. There were, as will emerge later, to be many changes before production began, and the primary origin of the idea of illustrative extension of the *Manual* is as yet not, and may never be, entirely clear. Van Voorst was the publisher of the 1841 *Manual* and a special version of this latter, prepared by Harvey

for presentation to Van Voorst, is now in the possession of the Department of Botany, BMNH, whence it came from the Linnean Society of London. This version may have represented some early stage in the discussions and generation of the ideas. The illustration in the version referred to is in the form of actual pressed specimens; those would obviously have been completely impracticable in terms of an issue of at least several hundred copies, apart from that being a less effective illustrative process than the interpretative drawings finally produced by Harvey.

By 24 April 1845, Harvey's interest in the matter of illustration and the methods to be adopted had gone sufficiently far for him to be exploring with W. J. Hooker and J. D. Hooker, amongst others, the feasibility of several different alternatives. In a letter of that date (W. J. Hooker, *English Letters*, vol. 23, f. 276), Harvey wrote to W.J.H. from Trinity College, Dublin, on the subject of 'transfer paper work', of which he had then produced his first attempts, one subsequently coloured, the other left plain. Although Harvey himself was not unduly impressed by his first attempts, he was clearly not disheartened: 'Though it is coarsely done I do not feel discouraged, for I feel certain I should succeed better after a few trials—but it is more difficult than I anticipated.' It is similarly clear from the rest of this same letter that the illustrative project had already aroused in Harvey, and for that matter also presumably in Van Voorst, a serious level of commitment. For its demonstration of the extent to which Harvey was indebted to the Hookers for advice actively sought by him, the letter is worth further quotation at length:

I was obliged to draw entirely with a brush not being able to master drawing with the steel pen. Of course I do not mean to attempt printing *names* myself. Brush drawing I am not at all used to, and find it slow work, & very far from *sure*.

Could Mr. Fitch be so kind as to select for me a few brushes such as he uses for his fine lines—and would you have the kindness to send them to me by post?—with any remarks & hints that might be useful to a learner, and which can be so conveyed. Delicacy of touch must, I know, be born on the premises if it ever arrive.

When you write please to give me the *statistics* of printing & paper of your British Flora plates, for my guidance in dealing with our printer here. I think 4 plates are transferred & printed together. The work I have in hand is to prepare illustrations of the genera of my Algae, like those in Greville—or like those in the last edition of Brit. Flora—and just the size of the latter. What I wish to know then is the cost of printing these, & the *cost for paper which will bear colouring* p 100 copies. I suppose Van Hoorst will print 500 copies—but I do not know.

Excuse these troublesome queries . . . Would it be easier to draw fine lines on the stone itself?

Van Voorst was at this time obviously the prime contender for publication of whatever the form of the work would turn out to be. However, at this time too, Lovell Reeve was involved in the publication of J. D. Hooker's *The botany of the Antarctic voyage of H.M. Discovery Ships Erebus and Terror*, referred to as the 'Antarctic Flora' in the quotation from W. J. Hooker correspondence, above. Reeve entered the *Phycologia Britannica* scene at this point for reasons that are not entirely understood but certainly included Van Voorst's trying to encourage Harvey in his early stages of drawing and illustration by sending him proofs (at Hooker's suggestion) of some of the illustrations of algae produced by Fitch and Hooker, and printed by Reeve for the 'Antarctic Flora'. It is possible that Van Voorst may also have been thinking of utilizing Reeve's undoubted expertise, as then expressed although subsequently argued about, in the production of illustrations for the project. If that were so, it was as potentially dangerous to his (Van Voorst's) own involvement in the scheme as from the spectator's viewpoint it would immediately appear and as it finally proved to be. This contact with what was germinating clearly stimulated Reeve to invoke the Hookers's influence with Harvey on his behalf, and from subsequent correspondence of the Hookers it may be that

W. J. Hooker had always in mind the potential advantage to Harvey of widening the field of play in these early stages (see later).

Be that as it may, Reeve's request for support led J. D. Hooker to write specifically on that subject to Harvey from Edinburgh, where he (JDH) was lecturing at the University for a period, on 6 May 1845 (Letters from J. D. Hooker, vol. 5, GRA-HAR, ff. 218-220). As a continuation of the letter in which he had already been telling Harvey about his experiences with the initial stages of lecturing, J. D. Hooker wrote:

I began the above [the rest of the letter] in King Street & on coming here [Abercrombie Place, Edinburgh] found a letter from Reeves [*sic*] begging a testimonial about printing in colour. The last that he printed are admirably done. These are, Polysiphoniae, Ptilota formosissima Callithamnions & also the Delesseriae of Part IX are very good: nor has he actually spoiled any in the attempt but Pol. botryocarpa the first attempt that was. It was his colorist that spoiled the 4 plates of this last number though Reeves himself evidently got so impatient that he wished to lay the blame on my having them printed in colour & wrote me word that he had spoiled them. I have told him to send you the last 4 that were done; they are really superb & have cost him great trouble & expense. I believe that he had a bad colorist & as he would never take my advice about changing he did not mention him to me in the letter in which he acquainted me about the 4 being spoiled. The colorist spoiled them for they were originally beautiful—As far as the printing in colour is concerned Reeves has beat any book that I ever saw as you will see when he sends you the proofs. I sent him a furious blow up about the colorist & the way he wrote to me on the occasion which brought Reeves to his senses I am glad to say: for he is a good man though a fool. After all it must be confessed that in my book he has a most laborious task & with the seaweeds the trouble has been dreadful to all parties. His fool of a colorist, after he found that the color on the stem would not take water color, grossly carelessly

as he laid it on, still continued to color up the whole plates: Reeves got angry at this & wrote me as if my having ordered the things to be printed in color (which he did remarkably well) was the cause of it all. The stones were not spoiled, the original lithographs are as good as ever, & if he only takes off as good impressions as the first were & ordinary lithographing he does well, then the Part X will be unique as an illustrated work on seaweeds—Anyone else could print common lithographs as well as Reeves for aught that I know but I should think no one so well in color. You must however judge for yourself by what he sends: I have seen all the 150 plates of those he sent & they are all equally good: all equally ruined by his colorist—I am of course *hard* upon Reeves—80 plates in a year is a prodigious number & I should not like him to lose your job through me: I can truly say that except for Pol. botryocarpa & Halymenia latissima the printing of all the *lithographs* whether in color or black is excellent. That he can print from transfer paper also more beautifully than anyone else the present *which please* return will show: that he has failed in similar ones my book proves. As far as going to expense & trouble is concerned no one deserves the job better than Reeves: he printed Pol. botryocarpa in 7. colors, before he would tint for tone & that did not do for coloring or working off.

Although neither the actual letter text nor the usually preserved draft text have thus far been traced of W. J. Hooker's reply to Harvey's letter to him of 24 April 1845 (see above), there clearly was such a reply and that a detailed one. Its content caused Harvey to write again to WJH, on 7 May 1845, after interim correspondence with Van Voorst; the nature of the latter missives will be evident from details of Harvey's letter (W. J. Hooker, English Letters, vol. 23, f. 277, 1845):

My dear Friend

On receipt of your *Lithographic* letter a few days ago, I forwarded it & the specimen plates to Van Voorst, telling him candidly how discouraged I felt, & the little probability there was of my succeeding.

I have this morning his answer, by which you will see (for I send you a copy* of all the important part) how seriously *he* is bent on the work, & that he offers me £225 (!!!) for my trouble, should I only succeed in drawing on the stones—that is at the rate of 12/6d for every drawing. This seems to me a very liberal remuneration for a “poor botanist”, & I own strongly incites me to persevere & try & conquer the difficulty of drawing on the stone. I give up the transfer paper, as neither he nor you approve of it.—

Van Voorst sends me from Reeve [*sic*] the proof impression of *Ptilota formosissima*, which is most lovely—an admirable drawing in itself, well printed—& most correctly represents the plant. Could I compass anything half as good I should be well pleased. I perceive that the drawing is done partly in chalk, but chiefly in ink, & that none of the *lines* are of that excessive fineness that is required in a *black* drawing, but that, being in red, is not so much so.

I own I still think that had I a few lessons from a competent master, I should be able to make sufficiently good drawings of the British seaweeds to meet the public. I could at least do as well as A. H. Hassall, I flatter myself, after a few trials.

Now, am I making too free to crave permission to draw in Mr. Fitch’s room for a fortnight? that I might get from him some little insight into the manipulation of ink brush & stone?—I should very willingly pay him whatever fee you think right for the twelve lessons, and thank him into the bargain—for, if I only succeed, *so as to please V. Voorst*, I hope eventually to get him to undertake a “Species Algarum” like your Sp. Fil.—

Since J. D. Hooker was away in Edinburgh and would not be an equally immediate recipient of data in Harvey’s letter to W. J. Hooker (as was usually the case), Harvey wrote also on the same day (7 May 1845) to J.D.H. This letter, more chatty since to a friend from his own age-group, adds further interesting data on the situation (Letters to J. D. Hooker, vol. 11, HAR, f. 25):

My dear Joseph

I am so “cock-a-hoop”—this morning (may your shadow never be less, I hope you are so too!) that I cannot help scribbling to tell you that the redoubtable Van Voorst has offered me £225! (in cash!!) for the copyright of “*A History of British Seaweed*”. 45 N^{os} of 8 plates each = 360 plates: *provided*—& here is the rub,—I make the drawings on stone—to be printed in tints.—As I do not like to let *the trifle* of my not knowing how to draw on stone—stand in the way of so tempting an offer—& as I think I ought to be able to make at least as handsome work as A.H.H.—I have written off to Sir William to beg him to give me shelter for a fortnight, whilst receiving 12 lessons in manipulation from the Illustrious Fitch—to whom I am willing to give any fee Sir W. shall name.

V. Voorst sends me proofs of your plates “*Ptilota formos.*” & “*Pol. dumosa + ceratoclada*”—as examples of tint printing. As such I am charmed with them, and as drawings I admire them very much. That of the *Ptilota* is in all respects admirable,—omitting only that you have not shown the structure of the stem:—& the *Pols.* are a great advance on poor *Pol. botryocarpa*: The dissections good—& no cartwheels. They are two as handsome plates as need be, & I hope these representing “the officers & gentlemen” will be equally so. Comparing them with the black impressed plates in N^o IX. they are vastly more beautiful—

*This copy has similarly not, so far, been traced.

though I suppose not so expensive to Reeves, as the former were coloured by hand. These do not require it.

This letter provides the first instance of a more or less precise statement of the overall size that Harvey must have had in mind for the proposed work, a size that was held to in the final event although detailed make up of the content in parts changed considerably—to an eventual 60 parts of 6 plates and text each, as opposed to the here suggested 45 parts of 8 plates each. It is an interesting commentary on the efficacy of Victorian mid-century postal services that J. D. Hooker had received in Edinburgh (from Dublin) this letter sufficiently expeditiously to be replying to it on 9 May 1845, in equally jocular if mathematically somewhat inaccurate terms (Letters from J. D. Hooker, vol. 5, GRA-HAR, f. 221):

My dear Harvey

999, 999 congratulations on Van Voorst's happy appreciation of your algological properties: 10,000 I reserve for myself alone, some day: When I have as much reason to be as thankful as I sometimes tried to be for [?—] in the old Erebus. I have positively nothing to say but to congratulate you. For my own part you may also extend to me a little gratulation, on my beginning to feel the truest & most heartfelt pleasure in having come here, & in having come with no selfish Bent in view: & in having overcome my modesty i.e. metamorphosed it into modest assurance. . . . I tipped you a long stave the other day about Reeves it was long enough & confusing enough but you know my *mixed* sentiments towards him, . . . If you go to Kew I would try if I were you to get as many rough sketches done under Fitches [*sic*] eye as you possibly can.

Harvey was at this stage full of organizational and executive enthusiasm. On 9 May 1845, he wrote to Rev. Miles J. Berkeley (Berkeley Correspondence, vol. 6, GREV to HOO, from TCD):

You will be pleased to hear that I am in treaty with Van Voorst for "A History of British Seaweeds"—to contain 360 plates, or one for each species, published in monthly parts 8 in each number, at $\frac{5}{2}$ /6d each. The plates to be printed in colours, & a few copies prepared at a higher price, hand coloured also. The only difficulty in the way is the yet unproved desideratum, whether I am able to make the drawings on the stone or not. I have yet to try—& mean to go to London & take a few lessons in manipulation under Fitch. I think, after a few trials, I ought to succeed as well as A.H.H. [assall] at least, & my book will be prettier than his, in as much as it will not be all green. Van Voorst has sent me some beautiful specimens of tint printing by Reeves, who is now it seems master of the art, having learned by spoiling a few of JDH's plates. One of the samples is *Ptilota formosissima* from the Antarctic Flora, & is in all respects lovely—a charming drawing—& most clearly & beautifully printed. The above "History" is to bring me *monies*—at the rate of £5 p N^o—for 45 numbers. This was V. Voorst's own offer, and as I thought it a fair one, I at once accepted it.

I wish you would follow up with "A History of Br. Fungi"—on a similar plan,—& probably V.V. would undertake it. As possibly 2500 plates might *frighten* him, you could propose to put several of the small species in one plate, so as to bring the work within 500 plates. Such a work would be hailed with welcome by many, and if you could only find time for the drawings on stone, or find any friend to do them for you, I think it quite probably [*sic*] that V. Voorst would be accessible.

Some tempering of this enthusiasm for the project must have followed W. J. Hooker's reply to Harvey's letter of 7 May (see above), in which permission to stay at Kew and work under Fitch for a fortnight at lithography was requested. Clearly, Hooker's letter was dampening so far as lithography was concerned, since Harvey's reply on 14 May [1845] (W. J. Hooker, English Letters, vol. 23, f. 278, 1845) began:

I feel much obliged to you for the very full & candid manner in which you have gone over the pro & con of my undertaking with V.V.—& your letter has convinced me of my inability to do proper justice in lithography to the work. I have therefore written him decidedly declining to undertake the lithographic plates—but as I own I have still a longing after a book of the kind, if it could be compassed, I have left an opening for *etching*—which you know I once dabbled in, and mean to rub up my faculties & try and scratch a copper. You may be sure that I shall make certain of his meaning in the £225, before I close. I look on that sum as *clear*—“compensation to the author for his labour”—& consequently that the expence [*sic*] of copper (which would not be more than £7* or £8) & carriage &c should fall on the publisher.

I shall minute my time too in the matter of etching, & if it take as much as you report of lithography, it will of course act as a bar.

I enclose you my letter to V. Voorst, as I have quoted your opinions pretty freely, lest I should have done so incorrectly—& will feel obliged by your sealing it & throwing in the post.

Note here the rapid change of tune from the letter to Berkeley (9 May 1845), in which Van Voorst's offer was thought fair and at once accepted, to the letter to Hooker (14 May), in which as a result of W. J. Hooker's counsel Harvey decidedly declined to undertake the lithographic plates. The comments on expense of copper for the etching which Harvey hoped Van Voorst would be willing to contemplate in place of lithography were Harvey's in both letter text and footnote. Clearly Hooker did 'throw' Harvey's letter to Van Voorst into the post after perusal, since it has not been traced amongst the Kew Archives; no copy seems to have been taken by Hooker and it is lucky that the content is more or less evident from the cast of the rest of this and other closely contemporaneous letters.

Harvey continued to keep Berkeley well-informed of the progress of events in a further letter (Berkeley Correspondence, vol. 6, GREV to HOO) of 21 May 1845, from Trinity College, Dublin:

A damper has fallen on my Seaweed Book, which may stop it altogether. Sir W^m J. Hooker most strongly urges me not to undertake lithographic drawing, on account of its great labour & uncertainty. His experience in the matter is so great that I own myself staggered by what he says—& if I cannot execute the drawings, of course it cannot go forward.

These last two letters make it very plain that Harvey had by no means fully relinquished the overall idea of this type of publication.

J. D. Hooker's letter of 9 May 1845 to Harvey (see above) obviously produced a reply [not traced] from the latter that included suggestions as to some of the species he was going to use for rough sketches under Fitch's tuition at Kew. In a wide-ranging letter of 30 May 1845 from Edinburgh, J. D. Hooker included a paragraph that must have again had the effect of somewhat raising Harvey's spirits in concurring with his choice of trial species (Letters from J. D. Hooker, vol. 5, GRA-HAR, ff. 222, 223):

As to lithographing; it is as you find it no joke, nathless your zeal will be able to do something. I do not think that you could have chosen two better trial subjects than *Dasya* & *Delesseria*, after them you & we will be better able to judge of your chances of success.

Despite this boost, Harvey's feelings about his ability to cope with the task continued to vacillate frequently and widely. He wrote again to W. J. Hooker (English Letters, vol. 23, 1845, f. 279), on 3 June 1845:

*A blunder! I find it would be nearer £70 or £80 ! or £50 at least.—

[N.B. This is Harvey's footnote which forms part of the above quoted letter.]

I have every reason to be obliged to you for saving me from the drudgery of lithography into the depths of which I was so thoughtlessly rushing. I am now convinced that both *it*, & *etching* are beyond my capabilities, without giving up more time to them than they are worth. Had I as great artistic facilities as Greville I might succeed, but my weak drawing will not bear to be still further weakened by doing it on stone or copper. Van Voorst writes very fairly, and is quite convinced that you have taken a just & dispassionate view of the case—which neither he nor I did. Still, he wishes (I think) to bring out a book on seaweeds which would range better with his other works than the Manual does. And I intend to prepare a set of sketches (*in pencilling only*, my dear friend) partly intended for Woodcuts, partly for copper plates, & by combining the two modes of illustration I propose greatly to cut down the number of plates:- and I think I can bring the work within moderate limits, without injury to its beauty or value. The letter press I propose to throw more into the form of chapters—with vignettes & tailpieces—which is a style Van. V. likes, I know, better than the synoptic form. I mean to prepare a *specimen*, both of letter press & illustration & take over with me. Of this therefore anon.

The general idea expressed in this letter now trends very strongly in the direction of what finally and later emerged as Harvey's *The Sea-side Book*, a text covering in chapters a wide spectrum of marine matters, including biota, and illustrated by delightful vignettes throughout. Published by Van Voorst firstly in 1849, this passed through at least four editions and proved a very popular 'little' work. Harvey's directional changes here caused W. J. Hooker to respond with some satisfaction and with something of a note of relief in a brief section of an undated letter (Sir W. Hooker's Letters to Dr W. H. Harvey, 1832–1860, f. 185) that (despite being labelled during curation as 1846) clearly dates from June 1845:

I am glad you have not thought me too severe upon your plates of Algae. Pencil sketches in illustrations of Algae I am sure you will do well & I think it will suit Van Voorst's purpose admirably.

Later (28th) in June, 1845, Harvey again wrote to W. J. Hooker (English Letters, vol. 23, f. 281), describing his plans for the summer after Trinity College went down on 8 July. These included a visit of a month or two to the shores of Dingle Bay ('Ross Bay,* outside Castlemain Harbour'), during which he proposed 'While on the shore I shall employ myself making sketches from fresh specimens of all the Algae I can lay hold of—& about Sep^l hope to have these so far advanced with as to be able to show to V. Voorst.' Ross Bay was 'within 4 hours drive of Killarney' and it was from Roche's Hotel in the latter that Harvey wrote on 21 August 1845 to M. J. Berkeley (Berkeley Correspondence, vol. 6, GREV to HOO) of his disappointment with the shores of Kerry compared to those of West Clare and bemoaning that he had 'not heard from Sir W.J.H. for an age, nor from Joseph.'

On 15 September 1845, Harvey was at Plassey, Limerick, whence he wrote to W. J. Hooker describing his plans to leave for Cork on 17 September and to sail thence to Plymouth on 18 September, reaching Torquay on the 20th; after spending some days with Mrs A. W. Griffiths, he would leave for London on 25 September by steamer to Southampton and from there by railway. Harvey was worried that he would miss J. D. Hooker in London, the latter possibly being by then back in Edinburgh; nevertheless, and despite knowing that Walker Arnott would be staying at Kew, he hoped that the Hookers could still provide him with a bed. That they did, at least until yet a further, third, guest arrived, is clear from letters between W. J. Hooker and his father-in-law, Dawson Turner (Sir W. J. Hooker Letters, 1845 to 1851; letter of 25 September 1845), and from Harvey to Berkeley on 27 September 1845 (Berkeley Correspondence, vol. 6, GREV to HOO). The latter indicated that Harvey arrived in Kew on 26 September and was probably going to stay there for a fortnight, having already passed a few pleasant days with Mrs Griffiths.

*Location = Rossbehy, rendered as 'Ross Begh' by Harvey in pl. 321 text.

The lithography lessons, despite all the previous doubts as to ability on Harvey's part, *did* take place at this time. The usual correspondence with the Hookers is, naturally, lacking during this period, but Harvey wrote to Berkeley on 7 October 1845 (Berkeley Correspondence, vol. 6, GREV to HOO) from West Park, Kew:

Here I am taking lessons in lithography under Fitch, & find stone drawing not unpleasant work. Enclosed are proofs of my 1st & 2nd lesson, which I have shown to Van Voorst, who thinks they will do—and I have nearly arranged with him to bring out “A History of Brit. Seaweeds” in monthly numbers—with figures of *all* the species—in other words 360 Royal Octavo plates.—This will be a lengthy job—but a very pleasant one—and will, I hope, open the way to a similar book on Exotic Algae to be called “Icones Algarum” &c &c—a work for which I have abundance of materials.

A note added, before sending, by Harvey along the letter margin indicated: ‘It is intended to touch the plates with *hand colouring*, so as to bring out the character better—and some will be altogether hand-coloured.’

Notice the renewed optimistic swing back towards the plan outlined in letters from Harvey to W. J. Hooker on 7 May 1845; to J. D. Hooker on 7 May 1845; to Berkeley on 9 May 1845. All these are quoted in detail earlier in this study. It is fortunate that the ‘proofs’ of the lessons referred to above in this latest letter have now been traced (Plates 4 & 5); these were for long apparently lost. That these ‘proofs’ were also really effectively proof forms of plates that finally did appear in the *Phycologia Britannica* and not simply copies of irrelevant attempts during the learning process at lithography by Harvey is clear, both from the illustrations presented as comparative plates of lesson and final *Phycologia* plate form (Plates 4 & 5) and from previous advice in the letter from J. D. Hooker (30 May 1845, from Edinburgh; see earlier), advising Harvey that his idea of *Dasya* and *Delesseria* as proof subjects was good, as well as from that letter, quoted below, from W. J. Hooker to Dawson Turner. It is by no means impossible that amongst the ‘proofs’ of lessons finally used were some, referred to in the letter above to Berkeley in part, that actually did involve *Dasya* and additional ‘species’ of *Delesseria*.

W. J. Hooker wrote to Dawson Turner (Sir W. J. Hooker Letters, 1845 to 1851, HOO–) on the same date (7 October) as did Harvey to Berkeley. He (WJH) remarked on the fact that Turner was going imminently to pay them a visit and that Harvey especially wanted to meet Turner, continuing ‘He [Harvey] is working at a Monograph of British Marine Algae & the enclosed is a specimen of one of his plates.’ Fortunately in a way, the Dawson Turner papers were examined by Hooker, as his son-in-law, after Turner’s death and letters that had been written by Hooker to Turner were re-possessed and incorporated into the retained correspondence collection of the Hookers. Thus, this information is being quoted from the actual letter that Turner received from W. J. Hooker, not from the draft (if any) that Hooker first put together. Both Turner and, subsequently, W. J. Hooker preserved the proof copy of Harvey’s plate sent by Hooker to Turner—it is a red proof *printed* copy of a plate actually finally used in *Phycologia Britannica*, which must mean that assuming (and there is no real reason to doubt this) it to be that sent by Hooker to Turner, the Hookers, Van Voorst, and Harvey between them must very quickly have set up an efficient system of trial printing of Harvey’s lithography done under Fitch’s supervision at Kew. This proof plate has been annotated by Harvey himself ‘*Callithamnion gracillimum*. Ag. Pier, Torquay. Mrs. Griffiths.’ and by W. J. Hooker ‘for D.T.’. *Callithamnion gracillimum* was Harvey’s ‘Lesson N^o 2’ (see Plate 5) and was eventually published as plate no. 5 in the first monthly part of *Phycologia Britannica*, that for January, 1846. *Delesseria Hypoglossum* (‘Lesson N^o 1’; Plate 4) was published as plate no. 2 in the same part and *Delesseria ruscifolia* as plate no. 26 in part 5 of the work. Other members of the Delesseriaceae (Rhodophyta) were published as plates 9 (part 2) and 23 (part 4). The first *Dasya* (*D. ocellata*) appeared as plate 40, part 7.

Harvey was still with the Hookers some days later and it is during this early October period that the hitherto invisible competition between Reeve and Van Voorst for the publication of

the finally-named *Phycologia Britannica* emerged fully fledged. It is for this reason of juxtaposition and consequent conversational contact that there is relatively little correspondence evidence for what occurred, although the situation can be readily deduced from the few letters and other sources available. The most useful prime source is the letter from Harvey to Berkeley, written from West Park on 10 October 1845 (Berkeley Correspondence, vol. 6, GREV to HOO). Part of the reason for J. D. Hooker's absence in Edinburgh during Harvey's stay at Kew was the selection process at that time of the next Professor of Botany in the University at Edinburgh, for which J. D. Hooker was a candidate; in the event, Hooker failed in this, and a large part of Harvey's letter to Berkeley is taken up with explaining the general understanding that Balfour had been selected before the Council actually met, and in debating whether Balfour could accept the financial aspects of the post. Harvey then continued:

My latter drawings are much better than those you have seen—& I have 2 Publishers bidding one against the other for the Work! This enables me in great measure to dictate terms—which of course I do pretty strongly. I have refused £360 for the copy-right—& have now an offer from Reeve's, which will probably put £600 in my pocket—a serious difference. Sir W^m has generalled for me famously in this instance.

Details of what that £600 actually meant are available in a letter, written in The Athenaeum, London, on Saturday, 11 October 1845, from W. J. Hooker to Dawson Turner (Sir W. J. Hooker Letters, 1845 to 1851):

I have come into town to assist Harvey in arranging for the publication of the British Algae:- & I think I have done well in finding him a publisher who will give above £200 for the work whatever be the sale. £300 if the sale amount to 250 copies & £400 if it reaches 300 copies.

It is curious, although doubtfully significant, that Hooker nowhere mentioned Reeve's name in this letter to Dawson Turner.

Shortly after this, Harvey left Kew, more skilled at lithography and presumably now convinced that he was so, to return to Trinity College, Dublin. Although I have so far traced none of the letters concerned, he was clearly in consistent contact with Reeve over the matter. A letter from Harvey to W. J. Hooker, from Dublin, on 27 October 1845, makes this plain (W. J. Hooker, English Letters, vol. 23, 1845, f. 288):

Reeve wants *another* change! namely—to print the broad fronds in pale black, instead of in colours. I told him I did not think they would look equally well, and would require four times more hand colouring—as the shadows would then equally require hand colouring with the frond. I suggested his asking your advice. Certainly they will look *less like seaweeds*, & more like *plates*, if printed in black. I am not yet at work, not having received the box of stones—which may still be ten days out.

At this point, Harvey was clearly champing at the bit to get on with lithography whilst he remained buoyed up by new enthusiasm and belief in his ability. This did not cause him to neglect his usual pattern of publicizing the position to his interested friends and professional colleagues. Some days before the above letter, he had clearly done just that when writing to John Ralfs, because the latter, then staying in Ilfracombe, wrote to Berkeley (Berkeley Correspondence, vol. 10, RAL–THW), to the effect that:

I had a letter yesterday from M^r Harvey. he tells me he intends commencing on the first of January a work on the British seaweeds to contain figures of every species in numbers containing 6 Plates each. he does not include the Diatomaceae and suggests my publishing a work upon them to include both marine and freshwater species.

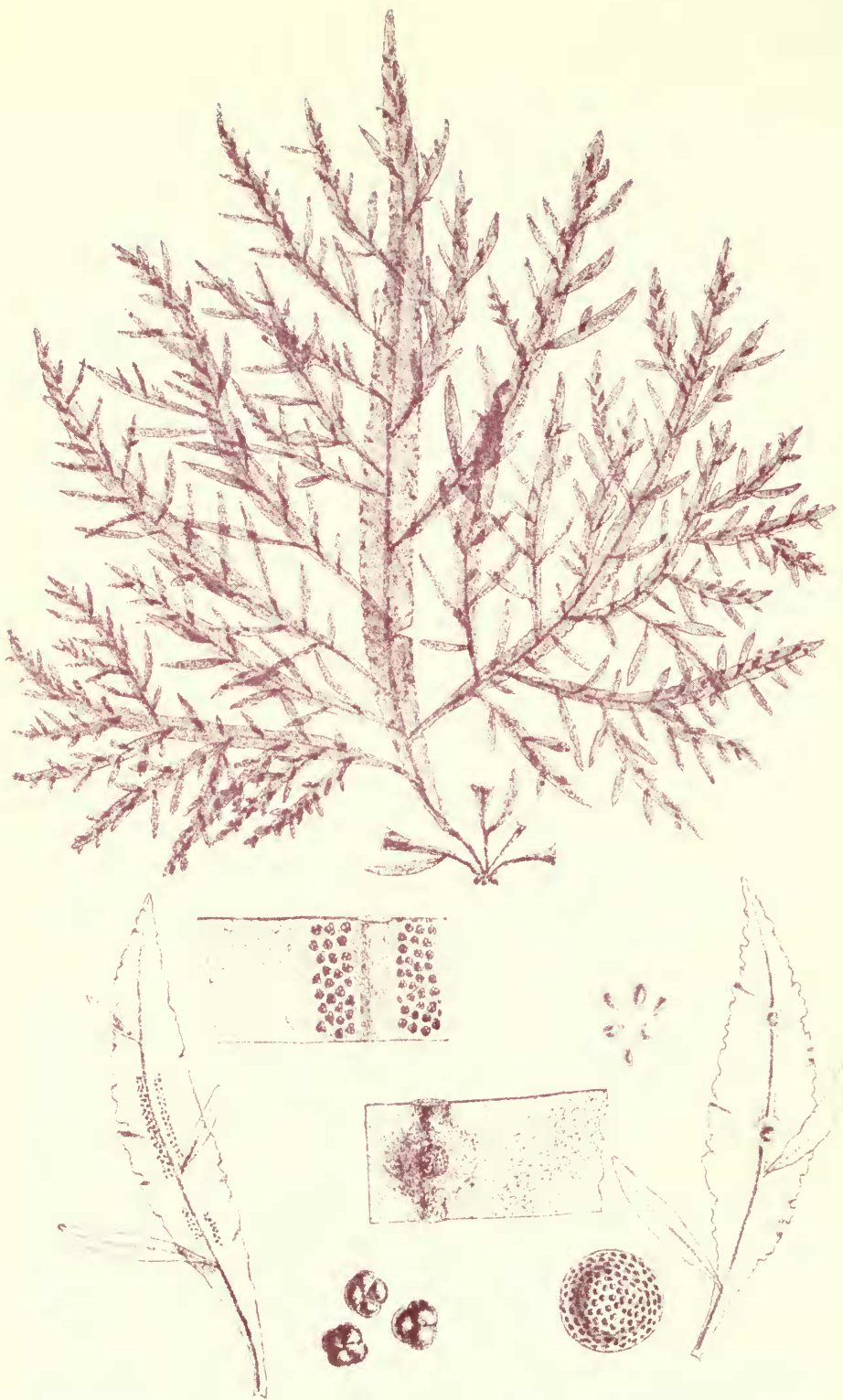
Two further relevant letters from Harvey to W. J. Hooker followed close on this. These

Harv. Phys. Brit. t. 7.



Polysiphonia furcellata.
Harv.

Plate 3 A coloured proof pull, sent folded through the post from Harvey to W. J. Hooker. The species name and authorities are in Harvey's hand.



Delesseria hypoglossum.
Ag.

W. H. H. lith.

Lapon N. 1.



Delesneria hypoglossum Ag.

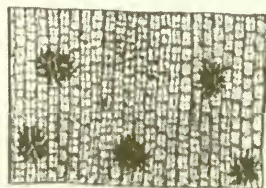
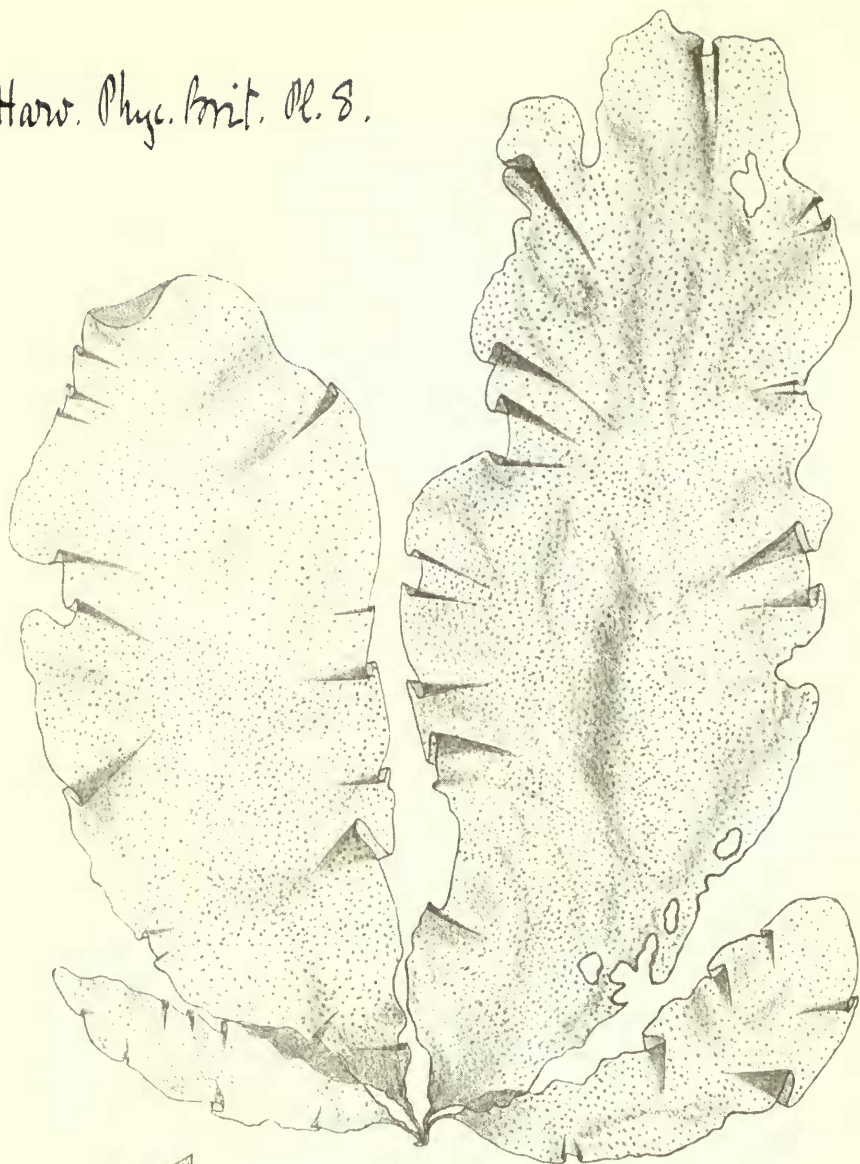


Callithamnion gracillimum Ag.



Plate 5 (left) 'Lesson 2': see pp. 99–104. The annotations are in Harvey's hand. **Plate 5** (right) Plate 5 of the work as issued.

Harw. Phys. Brit. Pl. S.



Punctaria latifolia
Grev.

Plate 6 A coloured proof pull, sent folded through the post from Harvey to W. J. Hooker. The species name and authorities are in Harvey's hand.

Harv. Phyc. Bot.

Plate LXXX



W.H.H. del. et lith.

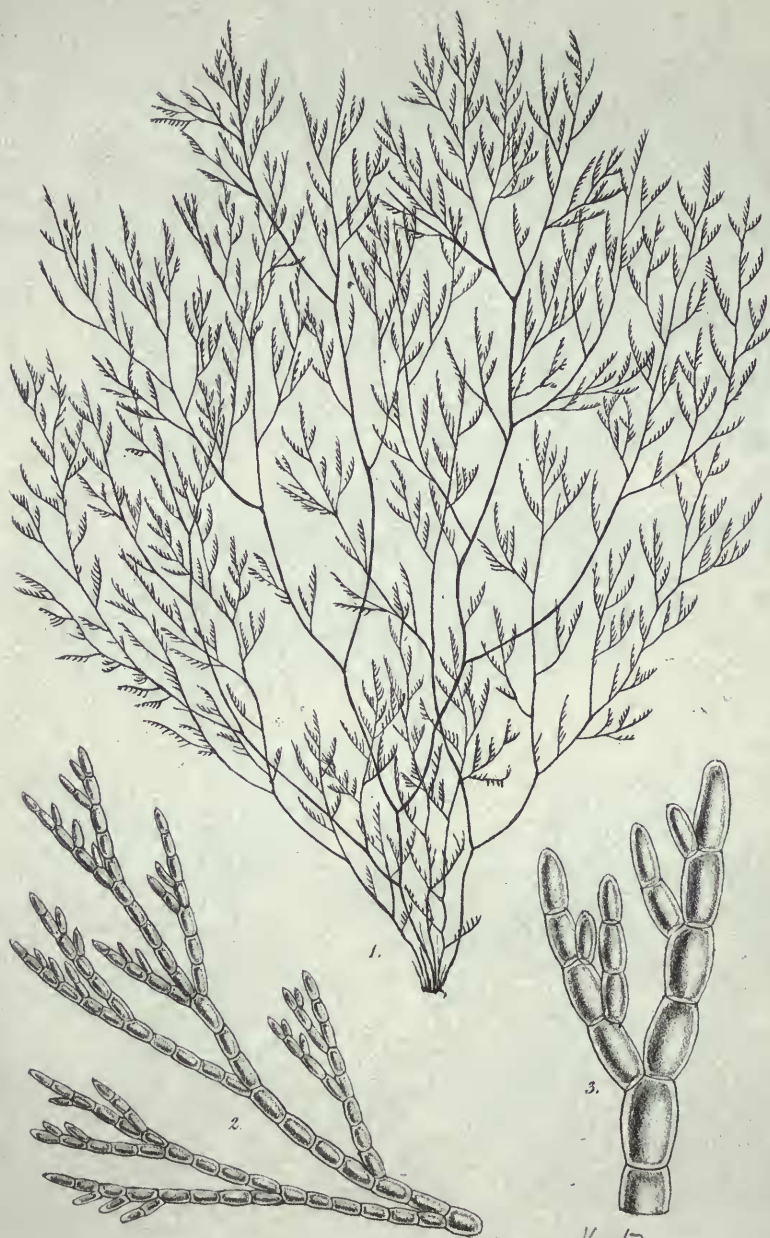
Reeve, imp.

Ptilota plumosa

Plate 7 A black ink printed proof pull/early plate state, clearly folded for sending through the post, probably to the Hookers. The species name for this early state of plate 80 (*Ptilota plumosa*) is in Harvey's hand.

Harv. Phys. Brit.

Plate CXXIV.



W. H. H. & C.

Cladophora Hutchinsiae Kütz.
 glaucous green, in water almost white

Plate 8 A black ink printed proof pull/early plate state; the annotations '*Cladophora Hutchinsiae* . . .' and 'glaucous green, in water almost white' are again both in Harvey's hand.

letters (W. J. Hooker, English Letters, vol. 23, 1845, ff. 289; 290) were dated respectively to 31 October 1845 and 6 November 1845. On 31 October, Harvey observed:

Reeve has broken out in a new place—but this time with my hearty good will & approval. He determines to print 1½ to 2 pages to each plant, giving them as much printing as in Grev. Crypt. & the Bot. Mag. It comes easier to me, as I was rather *bothered* to get what I wanted to say into a single page—and it will make the book look much handsomer.

One week later, the relative merits of black and colour printing for the plates were being strongly debated:

I have just received the enclosed from M^r Reeve.—Are they not IMMEASURABLY [*sic*] superior to *black*? I think so—, and am unwilling to order him to print in black such subjects as *Punctaria* & *Asperococcus*—Surely the reticulations come out strong enough. I have no *black* proof, (having returned the one he sent me), but if you will be so good as to get from him the patterns of these plates, struck in black, *which I coloured*—& then get Fitch merely to wash over those now sent, I feel almost certain that you will alter your opinion as to *colour-printing*, for *these plates*. I am quite aware, that by putting less shading in, they would look well in black; but pray remember that these two plates were shaded with the expectation that they should be printed in colour—& they look quite *sooty* when printed in black.

For *future* plates of broad plants I am willing to be guided by you, but then I shall not shade them nearly so strongly—saving myself thereby much trouble. . . .

Pray be good enough to forward *Asper. Turneri* to Mr. Turner.

Clearly, the pace of correspondence between Reeve and Harvey was at this time unflagging, and between Harvey and W. J. Hooker almost equally so. Indeed, this was undoubtedly the critical period for the whole work and therefore for the years 1846–51, in that policy decisions reached in late 1845 were going to affect irrevocably the final form of time-structuring and of product. The most critical of these policy decisions was that of the matter of colour *cf.* black printing, particularly in the cases of broad plants. This is almost certainly the explanation behind the odd mosaic distribution of presence/absence of ‘black engravings’ from *Phycologia Britannica* referred to in the following comments (Prof. D. A. Webb, Dublin, *in litt.*, 13 January 1981), for which I am much obliged: ‘I looked at random through the folders of a number of British species, and find that a minority, though a substantial one, have uncoloured engravings from the *Phycologia* pinned on to the sheets. Each has its name written at the bottom in Harvey’s writing, so I am pretty certain it was he who pinned them on. But why some species have them and many others do not is something for which I can offer no explanation.’ The presence scattered throughout the Harvey material of a mosaic of black and/or coloured proof pulls (British and Australasian) attached to the Trinity College Herbarium sheets of algae has also recently been kindly confirmed by Dr Alan J. K. Millar of the University of Melbourne.

The reason for the absence from the correspondence files of at least one of the ‘black’* proofs referred to by Harvey in his letter of 6 November 1845 to W. J. Hooker has been established as being that Hooker complied with Harvey’s wish that he (Hooker) send the proof of ‘*Asper. Turneri*’ on to Dawson Turner. The others may still prove all to be extant in one location or other when data from Dublin, Kew, BMNH and elsewhere are all collated. As will emerge shortly this, in correspondence at least, was not the end of the debate on colour *cf.* black printing of the *Phycologia Britannica* plates. See Plates 3, 4, 5, 6, 7 and 8 for comparison of coloured with black proof or early plate states.

The rest of the month of November 1845 was also productive of correspondence, and of information derived from it, on *Phycologia Britannica*. W. J. Hooker replied to Harvey’s letter on colouring of broad plants in his own letter dated only to ‘Monday Eve’. This can only have been 10 or 17 November, in 1845; probably it was written on 17 November, since the

plate of *Asperococcus Turneri* was sent to Dawson Turner with a covering letter dated 22 November and Harvey's letter, to which the following is a reply, was not written until 6 November. Hooker's letter (Sir W. J. Hooker's Letters to W. H. Harvey, 1832–1860, HOO, f. 216) commented:

I think when I spoke of printing your *broad* Algae *not* in colors, I spoke of doing so in *pale* black or grey. Under these heads I should class the color of your *Punctaria* & *Asperococcus**:—that is, I presume you do not call them printed in colors ??—they are a neutral tint well suited to bear coloring:—but are not I presume in their present state the color of the plant. I never intended or thought of a *dark black*. Indeed I think we quite agree upon this subject. I send the *Asperococcus Turneri* to Mr. Turner.

Sometime during early November, or perhaps rather late in October, Harvey and Reeve issued a Prospectus, to which reference was made in two letters: one of these, from John Ralfs to Berkeley (Berkeley Correspondence, vol. 10, RAL–THW) on 15 November, drew a comparison between the cost of the proposed work by Ralfs and that for the parts of *Phycologia Britannica*, Ralfs commenting that as soon as the price of his Monograph was determined, he would issue a Prospectus. A few days later, Berkeley was asked by Mrs Amelia W. Griffiths, with whom Harvey had recently stayed for some days in Devonshire, in her letter of 19 November (Berkeley Correspondence, vol. 6, GREV–HOO), 'you have I suppose seen a prospectus of his [Harvey's] intended new work'—this in the context of Harvey's recognizing instantly a plant of *Chylocladia reflexa* that Mrs Griffiths had found and of his intention to describe it as a British species.

During the last ten days of November, another potential teething problem developed for *Phycologia Britannica* and its maturation. Harvey wrote to J. D. Hooker on 21 November (Letters to J. D. Hooker, vol. 11, f. 32):

I am in a fix—from which I beg you—of your charity—to relieve me. Charity, you know is "easy to be entreated" + so I hope yours will be.

The Amiable Reeve wants a *woodcut* to put on the cover of the *Phycologia*—& suggests, as most appropriate, a group of seaweeds. I am a miserable hand at grouping, & besides, it is difficult to find many which would do for a woodcut. The *Laminariae* appear to me most suitable & I have endeavoured to make a mixture (alas! it is a *mess*) of them. Such as it is I enclose it herein—& my prayer is, that you, of your clemency, would cause Mr. Fitch to improve or remodel said group—so as to meet yours' & Sir W^{ms} approval—& to stop Reeve's mouth.

When remodified, please send it to Reeve who writes that "wood engraving is a very slow process"—& therefore urges despatch.

I have done 8 new plates—and think I improve as I go along—& certainly find it easier to use the brush. Reeve permits me to give an occasional *quarto* to *reckon as an octavo*—AT MY REQUEST:—that is, to give a quarto plate now & then without reckoning it a *double* plate. I know you don't approve of this mode of reckoning, but *I* do.

Very few of the parts of *Phycologia* with intact covers (wrappers) are known; some (29) are fortunately in my possession, and the woodcut from one of these is illustrated in Plate 9a. It is, in fact, the same woodcut (Plate 9b) as that which appears on the title-pages issued for the

*The original letter, referred to above, from W. J. Hooker to Dawson Turner of [probably] 22 November 1845 was retrieved from Turner's correspondence as detailed previously and re-incorporated in the Hooker correspondence files, now held in the Archives Room, Royal Botanic Gardens, Kew. It is filed as a leaf in the volume of Sir W. J. Hooker Letters 1845 to 1851, HOO—. The proof copy of the plate of '*Asperococcus Turneri* Hook', so annotated by Harvey, remains with it. W. J. Hooker's referring this proof colour to his class of '*pale* black or grey' is liberal translation indeed; the proof is hardly even a 'neutral tint' and, despite what Hooker suggested, reasonably well represents the common colour of the plant, a pale greenish-brown. This, of course, makes the assumption that the proof copy now associated with the letter is the one on which Hooker was commenting when he wrote to Harvey in those terms.

overall completed volumes. The extent of change between the woodcut finally used and the 'mess' referred to by Harvey as enclosed with his letter is not clear. The latter presumably was passed by J. D. Hooker to Fitch for comment and possible re-design, and seems not to have been re-associated with its original covering letter. It could either have been only slightly amended and actually used, or summarily dismissed and destroyed. Further evidence cannot be traced, although the grouping is clearly assigned "W.FITCH.DEL."

Similarly un-traced is interim correspondence between either or both of the Hookers and Harvey, and between any or all of these and Lovell Reeve, on the subject of the woodcut, between that quoted above from Harvey on 21 November 1845 and another from J. D. Hooker to Harvey on [?] 15 December of that year; the latter, although on the subject of the woodcut, is not a direct reply to Harvey's letter of 21 November and answers questions that had not yet then been raised. Another letter in this period does exist, from Harvey to W. J. Hooker on 26 November 1845; this is largely about Ralfs and his work on Desmidiaceae, which Harvey thought highly of and for which he was trying to drum up maximum support. The letter (W. J. Hooker, *English Letters*, vol. 23, f. 291, 1845) contains only an incidental terminal comment on Harvey's own work:

At present I am very busy with Lithography, & only get through 4 plates per week.

This comment, taken alongside that in the previously-quoted letter of 21 November, shows clearly that Harvey was aiming to build up a fair reservoir of available plates for *Phycologia Britannica* before issue of parts of the latter began, in order to 'stay ahead of the game'.

There is some doubt as to the actual dispatch date or date of writing of the letter from J. D. Hooker to Harvey and referred to above as ?15 December. Hooker had dated the letter only as 'Saturday', from Kew; '12/15 1845' has been added later in a hand not easily identifiable but clearly curatorial. That annotation *could* even have been added by Hooker himself in regard to the date he actually *sent* the letter, since this is one of the drafts in the 'Letters from J. D. Hooker' collection. Such would, in any case, tally well with the rest of the sequence; 15 December 1845 was a Monday, and probably therefore the earliest collection day after the letter's being written on the Saturday. This letter is certainly part of the group concerning the proposed woodcut for the *Phycologia* covers.

It seems likely from the phraseology in the ?15 December letter that Reeve had been pushing strongly the matter of the woodcut with Harvey and champing at the bit to get on with things in letters to the latter not so far traced. Amongst the bit-champing was, apparently, the suggestion that he (Reeve) should be allowed to supply the woodcut for the cover if Harvey could not do so with some dispatch, the cost to be shared between the publisher and Harvey, as author. This suggestion was clearly relayed by Harvey to J. D. Hooker (with the request that W.J.H. be consulted for his opinion) or direct to W. J. Hooker (who requested his son, J.D.H., when writing to Harvey to transmit WJH's opinion). However that may be, neither of the Hookers was terribly enthusiastic about Reeve's suggestion nor, for that matter, was JDH so about Reeve himself at that point in time, from the tone of his letter to Harvey (*Letters from J. D. Hooker*, GRA-HAR, vol. 5, f. 229):

My Fathers advice is *not* to go half with Reeves [*sic*] for such a woodcut as he will supply—I can see through it all; he wants the same man to do it who spoiled my vignette & which caused me to get another done at my own expense. (by another Artist. [inserted as an afterthought]) The man who wants a fortnight & does not understand the design is a wretched wood-cutter & no one wants a fortnight for such work, but such a one or else how is the Illustrated News & P.

Times dashed out at a days notice ? & better done than Reeves man can do.

J. D. Hooker was here talking of aspects of his recent publications on the *Erebus* and *Terror* expeditions in the deep south, and was clearly incensed at what he regarded as doubtful professional conduct. The letter continued:

PART III.

Price 2s. 6d., coloured.

PHYCOLOGIA BRITANNICA:

OR

HISTORY OF BRITISH SEA-WEEDS,

CONTAINING

COLOURED FIGURES, GENERIC AND SPECIFIC CHARACTERS,
SYNONYMES, AND DESCRIPTIONS

OF

ALL THE SPECIES OF ALGÆ INHABITING THE SHORES OF THE

BRITISH ISLANDS.

BY

WILLIAM HENRY HARVEY, M.D., M.R.I.A.

Keeper of the Herbarium of the University of Dublin.



LONDON:

REEVE, BROTHERS, KING WILLIAM STREET, STRAND.

FORTIN, MASSON ET CIE., PLACE DE L'ECOLE DE MEDECINE, PARIS.

1846.

PHYCOLOGIA BRITANNICA:

OR

A HISTORY OF BRITISH SEA-WEEDS,

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IN THREE VOLUMES.

VOL. I.

LONDON:

REEVE, BROTHERS, KING WILLIAM STREET, STRAND.

1846.

Plate 9a The woodcut shore grouping used on the front wrappers of all the parts as sold. In this case, the example is of Part III. The paper on which it is printed is yellow—probably originally a pale lemon colour—and provides less contrast than that of the volume title-pages (see 9b).

b The same grouping, as used on the title-pages, here Volume I of the three-volume version (see 9a).

Reeves [*sic*] sent to ask me for the Fuci represented, but he so dirtied some things I lent him before, that I would not send them, but referred him to plates for them. I suppose this has discontented him. The same man did not understand the Erebus—, 12 months ago & I daresay would have asked the loan of them, if he had thought it worth the while. We have had another row with him for advertising the century of Orchideae as if it was to be a wholly new work. He tried to shuffle out of it, by saying he had not even seen the advertizement when printed; but it is evidently an intentional trick, which some would call deceit. He has also been bothering Mr. Lyons early about his part of the work & wanting to screw a plan of his house (?) sections &c gratis out of him, refusing to pay the person Mr. L. would require to employ; ditto with regard to an Orchid. stone: of which he would like a reduced copy of the plan; I have been thinking since that Yarrell would have been the best person to apply to; do you remember the *tail-pieces* to his work on Fish ? little sea views with weeds &c. in the foregrounds. A coloured thing such as Reeves suggests would look vile. Reeves [*sic*] has never been bullied by me, I do conscientiously affirm that I have repeatedly let him off, when he has been very troublesome. His printer made 38 errors in a 1/2 sheet proof that came yesterday & left two lines out. The MSS was as clean & distinct as possible & I excluded in my numbers all errors of *a* for *k* & the like where ambiguity existed. The said 38 were wholly & entirely his own, & yet R.[eeve] sends me a complaining letter that he has to pay 5/- a sheet for *my* corrections of press, also that he will back his printer with any in London. He almost spoiled a stone for *E. Forbes* & laid the blame on the lithographer, but the same was sent to Hallmandle [Hullmandel] who took off purpul [*sic*] impressions from it. The conceited ass has just printed a paper full of confounded nomina in the *Annales*, declaring some naval friend of his has found that Cypraea change their shells: a very old story & mistake arising from the great similarity between a certain naked Mollusc, & the animal of the Cypraea.

Pray do not for a moment think that I will be vexed at the rejection of my design, it is one of which Harvey the woodcutter or Sly would have made a very pretty thing, but to have had it picked out in ink as the lines on the woodblock are & which his woodcutter wanted, would take a great deal of time & is what a decent artist does not want. My Father says you should not trouble about a cut at all, & at his advice I do not communicate with Reeves on the subject.

The stones you enquired of from me once, are in the hands of Mr Davis at Galway, they are 2 lithographic stones & 2 zinc plates each 12 × 10 inches, the latter in a Mahogany box for travelling, with chalks transfer paper &c., they cost him £2..6 exclusive of carriage & as he cannot use them he would take what he can get for them. If you do lithograph much I would try Grieve, who is very reasonable & good & who does all with zinc. Fitch likes zinc as well as stones & the first plate of my book done on zinc & printed by Grieve was much better than Reeve's done on stone.

The same general feeling of disillusionment and annoyance with Reeve continues evident in another letter from J. D. Hooker to Harvey, also from Kew, later that same month (30 December 1845; Letters from J. D. Hooker, GRA-HAR, vol. 5, f. 228):

I have directed enquiries to be made about the Trade price of stones & will inform you when I receive the answers, I should think Reeves [*sic*] will be reasonable but can't tell, he is a curse & there's an end on it. he has *not printed one line of my flora all this month* & annoys me in fifty ways. What do I hear now?, not content with his business he makes an ass of himself as a lecturer on Nat. Hist. in some Surry [Surrey] institution; Further he attends Bickersteths Sermons at the Magdalen & sends him critical letters on them signed L.R. ! No wonder he has too much on hand; if this is the way things are to go on I must

come to air open Rumpus with the blockhead. I do not wonder at your being enlivened at getting a remittance from the C.B.S. publisher, was it not Rokestone, I think I remember him, a very civil fellow, I wish he would change places with L.R.

Rather full quotation from the last two letters mentioned of J. D. Hooker to Harvey has been a requirement; apart from the general importance of the process by which the vignette woodcut was generated and of the background to the lithography that was to be a major preoccupation for Harvey over the years ahead, this full quotation permits comparison between the present attitude to Reeve, which must also largely have been common to Harvey, and that evinced through letters but a few days removed in time from the present series, although nominally dating to 1846 and across the great divide created by the appearance of Part 1 of the *Phycologia Britannica*.

Events after publication of Part 1 and contemporary opinions of the work

The Events

The early days of January 1846, brought with them what is virtually a *volte face* in at least Harvey's side of the Harvey/Hookers correspondence on the subject of Lovell Reeve, his activities, his attainments, and therefore his status as regards that author's respect. Harvey wrote from Dublin to Sir William Hooker on 5 January (W. J. Hooker, *English Letters*, vol. 24, f. 240):

Saturday brought the 1st no. of the *Phycologia* here.—Reeve has done his work well,—it looks respectable—though I see many defects in the plates. The coming ones will have fewer I hope. The woodcut looks very well—and is quite an improvement to the face of the book. I hope Reeve has sent you a *Quarto* edition. If not, let me know & I will row him.

In 1846, 5 January was a Monday, so that the first number reached Harvey in Dublin on 3 January; in turn, this must mean that it was posted promptly in London on or just before 1 January 1846 (Thursday). Reference back to Price (1984) will indicate that *The Athenaeum* carried on 27 December 1845 (Saturday) an advertisement to the effect that the part for January 1846 of *Phycologia Britannica* was announced (but not indicated as ready), so that it is possible that dispatch occurred on the Monday after (29 December). The delivery of copies to others must have been similarly rapid, although atypically the Linnean Society did not register receipt of their copy until 22 January 1846 (Price, 1984). J. D. Hooker was already writing to Berkeley in Northamptonshire on 11 January 1846 *in reply* to Berkeley's letter to him commenting on the first number of the *Phycologia Britannica*; hence, a copy must have reached Berkeley rather promptly for all that to have been possible.

Although there are variations in detail on the theme (comments are explored in detail in later sections and in Appendix III), the general tone of the reception of the early numbers was favourable. Some reservation was expressed by J. D. Hooker (Berkeley Correspondence, vol. 6, GREV–HOO) in writing to Miles Berkeley on 11 January 1846, stating of the *Phycologia*: 'I do hope it will go on as well', although it was not clear whether he was reserved about content or, more likely, about maintenance of standard of production. Since Hooker then went on to say that: 'Reeves [*sic*] are giving up the shell business & devoting more fixed attention to the publishing', he very likely hoped that the latter would reduce the degree of preoccupation and increase commitment to long-term works such as the *Phycologia Britannica*. W. J. Hooker, who wrote to Harvey from Kew on 15 January (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–1860, vol. HOO, f. 168), joined the general enthusiasm, but somewhat drily observed: 'The Quarto [version] is duly come though not quite so soon as it should have done from some little error on the part of Reeves.' As a parting shot, he added: 'The Wood-cut might be better', an opinion not entirely consistent with Harvey's own (see his letter of 5 January).

Not long after this, on his thirty-fifth birthday (5 February 1846), Harvey still found time to

write to Joseph Hooker stating somewhat prophetically (and, as it proved, optimistically) that, of his life, 'half the sands *at least* [his italic] ebbed out'. This deceptively calm statement is paralleled in the same letter by a devastatingly honest statement about his knowledge of Corallines (Letters to J. D. Hooker, vol. 11, HAR, f. 34):

My dear Joseph,

I take it as a piece of *deliberate malice* you sending me the enclosed to name, when you know right well that I have not ten named Corallines in the world—that I do not even know the British species—though about to describe them—& that there are no books for foreign species. As far as I dare say the enclosed is *Corallina Squamata* of Ellis—see his plate 24. fig. c.c.—but “not knowing, cant say”!!—

Very much in the usual pattern of correspondence from Harvey at this time, only 5 further days elapsed before yet another missive was on its way to J. D. Hooker from Trinity College, Harvey this time (10 February) being much exercised by the matter of *Stenogramme interrupta*, held only in the Hooker Herbarium at that time and being requested by Montagne, in Paris. Asking Joseph Hooker to send him ‘a morsel’ for Montagne, Harvey went on: ‘I must some day figure that said specimen.—’ (Letters to J. D. Hooker, vol. 11, HAR, f. 35). Harvey was here speaking of including the species in *Phycologia Britannica* which (on the basis of the specimen in Hooker’s Herbarium at least) did not happen. *Stenogramme interrupta* was finally included in the *Phycologia*, as part 30, plate 176, published 1 June 1848, on the basis of what was stated to be the first record, by J. Cocks, at Bovisand, Devon, November 1847. Cocks, in a letter of 18 June 1848 to Harvey (in Herb. T. C. Dublin) requested that if Harvey again had occasion to mention the species, he should correct the mistaken date for the Bovisand find to the actual one of 21 October 1846. This was done in 1851. Clearly, even so early in the currency of the *Phycologia*, Harvey was already building a stock in the form of batches of plates involving working something like six or more months ahead in illustration, although from other sources and comments in correspondence he was a good deal less so in provision of text, often written with the appropriate plate before him. The general situation was expressed in that letter of 10 February, when he stated:

The day is now barely long enough, till I get through my *Dasya* plates (6 quarto), which come on after the present batch of *Phycologia* (12) are turned off. This will not be for a fortnight.

Following not long after was an interesting letter to the Rev. Miles J. Berkeley; written on 5 March 1846, this gives considerable insight into finance and attitudes in this working arrangement with Lovell Reeve, and forms the prelude to a series of lengthy letters with various correspondents (although principally the Hookers) in airing aspects of the *Phycologia* about which Harvey was not then too happy. The letter commented:

I intend to give Lenormand the *Phycologia*, & shall forward him the 3 first numbers tomorrow. It will be more interesting to him than to Montagne, & I cannot afford to give many copies away—seeing I pay trade price for them all. I give none in England except to Ralfs, & that for reasons which are obvious. I mean to give 4 or 5 on the Continent, but as yet have only determined on Lenormand & Meneghini.—If Biasoletto would send me plants he should have a copy,—but really those Italians are much more free of promises than of plants. Meneghini sends me his “Alg. Ital. & Dalm.” so he is fairly entitled to a copy.

But I must not forget my object in troubling you with this note. It is to beg, (*a la A.H.H.* ?) that you would give a few lines in Lindley’s Gard. Chronicle, descriptive of the *Phycologia*, its plan & intentions &c and its execution. I do not want to be praised to the skies, for I am conscious of many, many defects—all I want is that the readers of the G.C. may be informed that such a Work is in progress—In other words—I have an interest, as you know, in the sale—&

consequently wish as many to know I have goods to sell as may be. It is perhaps a little indelicate to write and ask to be noticed. You will freely take no notice of this request if you feel the slightest hesitation in this matter. I write to you because I wish, if noticed at all, to be reviewed by a competent judge—& Lindley you know knows nothing of Seaweeds.

This script, held in the Berkeley Correspondence, vol. 6, GREV-HOO, and written as usual from Trinity College, was not Harvey's only attempt to make sure that the *Phycologia* was noticed by appropriate journals of the day; amongst other matters in a letter of 23 March 1846 to Sir William Hooker (W. J. Hooker, *English Letters*, vol. 24, f. 244, 1846), Harvey requested that:

When you find a convenient place in the Journal [Hooker's, *London Journal of Botany*]—perhaps you would notice the *Phycologia*. The April N^o—(if not spoiled in the printing or colouring) will be the best yet. All its plates are handsome.

It will be noticed that this short section of the 23 March letter betrays an increasing confidence in his own illustrative abilities on Harvey's part, as yet unmatched by a similar increase in confidence about Reeve and his various production associates/employees. The letter was written from Dublin, so that it is possible (especially in view of the alacrity of both the then postal system and the correspondents in this particular exchange) that the reply from Hooker, dated from Kew only as 'Wednesday', was actually written on Wednesday, 25 March 1846; at any rate, it was most probably written then or on the next Wednesday, 1 April 1846. William Hooker was clearly quite happy to oblige by noticing the work, but equally did not propose to 'puff' by praise unless he felt it justified. Harvey, being the man he was, would doubtless have been embarrassed by any lesser degree of frankness. Hooker wrote (Sir W. Hooker's *Letters to Dr W. H. Harvey*, 1832–60, f. 179):

I will not forget a notice of your charming book as soon as I have a little leisure. If you would give me any notes on the plan &c. you may safely leave the praise (or otherwise) to me: & it would be some help to me.

In Harvey's further response, dated from Dublin only as 'Sunday' and therefore probably written on 29 March or 5 April, depending on the dating of Hooker's letter, there is indication of Reeve's attempts at publicizing the work:

The best notes I can give you on the plan &c of the Phyc. are contained in the Prospectus, & in the *Advertisement* prefixed to the first number. The cover of the next Bot. Mag. will flame with it, Reeve says.

This letter (W. J. Hooker, *English Letters*, vol. 24, f. 245) presents useful confirmation that the *Advertisement* was actually issued with part 1 of the work.

Very soon after this, in a massively busy month for *Phycologia* correspondence, Harvey wrote (Letters to J. D. Hooker, HAR, vol. 11, ff. 37, 38—single letter), clearly in response to a thus far untraced letter in praise of his efforts, from Hooker Jr, in some detail of his problems with the coloration of plates as published. This letter is both an excellent example of Harvey's occasionally dry humour and a firm exposition of the extent to which he looked to both the Hookers for practical help and moral support in the complexities of the production process. This letter from Harvey is dated only to Easter Evening [= April 12] of 1846:

My dear Joseph

. . . As to your praises of the *Phycologia*—they only half please me!—What! not fulsome enough for my palate!—nay verily—but how can you overlook the abominably careless *colouring*—on which I have been lecturing Reeve, & getting others to lecture him. It pains me to look at the 4th. number, which is turned out more like a child's 6^d toy book—Goody two shoes or the like—than like an "opus magnum" as it ought to be. I assure you the coloured patterns I

sent him were very different looking things. How horribly the tetraspores are butchered—& poor Miss Hincks has not got a lick of the brush—(central figure) at all at all. Then *Brodiaei* is thoroughly spoiled through careless colouring and it ought to be a beauty. How do you compel Graves to obey you?—Do you see *coloured* proofs?—I fear Reeve is cutting him down to some very low figure at which colouring cannot be decently done. The sale is only 166 he tells me—& I suppose this does not quite pay him—& that he is screwing tight. Do help me, please. At least with advice. Pray look at the bad colouring of the last number, & next time you pass the shop—give a word in Season. You promised me “troubles” in the affair. This matter of colouring is my only trouble yet, & it is a teasing one.—If so be, that you look at *coloured* proofs of your plates before publishing;—would you have any objection to do this friendly office for me—I sending you a coloured pattern—you judging whether Graves did justice to my plate.—??—

I fear to trust Reeve—he is so ignorant. And yet, it may be imposing an unpleasant office on you. If you would think it so, or if it would be too troublesome—say so frankly.

Another matter. Reeve complains that the work *comes out slowly*—& wants me to publish *now & then* a double number. He does not, I suppose, relish a 5 years probation. I certainly *could* publish faster—at least the future volumes—& had he given me notice a month or two ago of his wish—I could easily have prepared more plates for the present year. But I cant lose my holidays to draw plates for him. What is yours, & Sir W^{ms}, opinion on this matter. Ought I to publish these double numbers, so as to finish the book in 4 instead of 5 years. ?—

. . .

We ought to have letters from Gunn soon—in reply to our parcel. If he is a good boy I may send him the Phyc. by & bye. At present I pay for 5 copies to give away—all on the Continent—that is—4 Europe, & 1 America (Prof. Baillie).—

This letter, as with many that follow, is also expressive of yet another general attitude reflected in the years of correspondence on *Phycologia Britannica* between Harvey and the Hookers. Justified or not, the textually abusive treatment of Lovell Reeve, who only a little earlier than the years of *Phycologia Britannica* had also been responsible for the publication of the *Flora Antarctica* (*The Botany of the Antarctic Voyage of H.M. Discovery Ships Erebus and Terror*), by the triumvirate emphasizes rather astonishing overt swings in attitude to Reeve throughout the present correspondence period. It is not clear to what extent the abuse was ever directly verbally presented to Reeve, although from some of Joseph Hooker’s letters it likely was so on occasions.

One such occasion is outlined in another April 1846 missive from Harvey to Joseph Hooker (Letters to J. D. Hooker, HAR, vol. 11, ff. 39, 40—single letter), written from Trinity College some 10 days after the letter of Easter Evening and in response to a further letter from Hooker that had lain in Harvey’s Dublin premises awaiting the latter’s return from a week or so away. This follow-up letter is also worth quoting at some length, since it establishes the atmosphere of negotiations and tensions; it demonstrates the continuing thorny problems, arising throughout much of the early currency of *Phycologia Britannica*, in matters of coloration, its desirability, efficacy, costing and organization. Even as early as October 1845 this was identifiable as one of the principal contentious subjects in the development of this publication (see above). Harvey penned the letter concerned on the day of his return to Trinity College, 22 April 1846, saying to Joseph Hooker:

. . . thank you for your energy in my cause in various ways. First for your attack on Reeve—whom you know so well how to manage. I have a new letter from him today—in which he goes back in spirit from the singular “peccavi” humility of his former letter—and assures me that when he undertook the work he did not

anticipate that the colouring would be more than a little touching up at most, & broad washes to a few. Instead of which he finds that all require a full colouring. In reply I have admitted that I did not anticipate such heavy colouring, which is partly necessitated (I tell him) by the bad colour of his printing inks—but I remind him that he has in *his prospectus* appealed to the seaweed plates of the Antarctic Flora, & promised that those of the *Phycologia* shall be “coloured with equal care.” I tell him therefore that I think is he bound to colour *as well* as these;—but not *better*; & therefore that if I require my plates to be more expensively coloured I ought to bear a part (at least) of the expence. [*sic*] This would appear to me but fair—and I have suggested to him to leave the matter to your Father to decide. I am quite satisfied to do as he shall direct. I had far rather have the work *well put out* than pocket money by it. Reeve should be made to show that he allows as much in proportion, for the colouring of the plates as he paid for the Antarctic. If that be not sufficient for my plates—and a fair sample of the whole work is now before the colourer—I am willing to make up either the whole difference, or such part of it as your Father thinks just & reasonable. But in the event of my having to pay, I would avail myself of your kindness in looking over the work. Otherwise perhaps I have no right to put that curb on Reeve,—at least only by his sufferance.

I shall be glad to hear what Graves says in reply to your letter.

I have consulted sundry persons about the faster publication & their advice pretty nearly agrees with yours. Thompson suggests that if I could finish up the first vol. at once, & issue it, at the option of subscribers, either as a Vol., or in monthly regular 2/6 parts—many would press for the former, & the poorer sort be accommodated with the latter. This I *may* possibly do—*AFTER vacation*. Catch me cheating myself of my holidays. Nay, nay.—. . .

Gunn has written me a nice letter, acknowledging the parcel—which he says pleased him, & promising a great harvest of Algae on his visit to the sea—which was “about to be”.—I mean therefore to send him the *Phycologia*, in your next parcel.

The letters of 12 April and 22 April detailed above are typical of the *Phycologia Britannica* subject matter in correspondence during this crowded late April–early May period of 1846. Impact created by the early parts of the work was still fresh and important to the correspondents, outstandingly so to Harvey and his more immediate circle involving the Hookers, Lovell Reeve, Miles Berkeley, Amelia Griffiths, John Ralfs and a host of others. Although Harvey neither confided in such detail nor asked advice to the same degree and frequency of others as he did with the Hookers, he kept most of his more customary correspondents abreast of the general trend of events. During this crowded April/May period, for example, he requested of Miles Berkeley (see Price, 1984) specific information on the fructification of the brown seaweed *Cladostephus verticillatus*, indicating in doing so that he had figured it for the June number of the *Phycologia*. Since Meneghini's (*Alg. Ital.*) interpretation of certain structures differed from those accepted by Harvey and Mrs Griffiths, Berkeley was asked as arbiter (25 April 1846; Berkeley Correspondence, vol. 6, GREV–HOO):

. . . What say you?—I must write my description immediately, & will feel obliged by your examining the matter, and authorising me to give *your* opinion, whatever it be. . . . I have been scolding Reeve about the bad colouring of the last [April] number—which is really shameful.

Clearly, the ‘Goody two shoes’ issue (see the letter of 12 April, to JDH) had deeply affected Harvey. In the subsequent letter of 22 April, again to JDH, Harvey had mentioned inviting Reeve, in response to a letter from the latter complaining about the extent and cost of coloration, to leave the matter to W. J. Hooker for decision. The receipt, presumably on

Saturday, 25 April, of a further note from Reeve following *his* receipt of the 'patterns' for the June number and in agreement with submission of the matter for W. J. Hooker's arbitration, prompted Harvey to write on 'Sunday' [which must in this case mean 26 April 1846] to 'My dear Umpire'. Although the manner of writing clearly indicates that the 'Umpire' in this missive meant J. D. Hooker, Harvey would have been fully aware that generally shared interests, shared friends, shared colleagues and close familial relationships would have meant rapid cross-communication between Hooker Senior and Hooker Junior about such matters of common interest. This letter of 26 April is of importance since it also enclosed a full transcript of the note to Harvey from Lovell Reeve. Harvey himself wrote (Letters to J. D. Hooker, vol. 11, f. 41):

I think it well to send you annexed a copy of a note which I have just received from the Enemy. I confess the sin that there is [*sic*] one or two awful plates for June—and fear I am in a fix. We have priced the work too low—and I know not how the difficulty is to be met.

Reeve should be made to show that he allows a *fair sum* for colouring, keeping him to his bargain that the Colouring shall be equal to that of the Antarctic Flora. If that point can be *SECURED*—I will gladly let him off of the prospective £360, and be contented with the £1/plate in hand.—I would rather sacrifice this sum, or indeed the whole £720, *minus a few copies to give away, which I now pay for & say ten or twelve copies*—than injure or obstruct the Book. I shall be quite contented to be borne *free of loss* if driven to such hard terms. I cannot afford to be *out of pocket*;—but must be resigned to make no profit if need be. I am sure however that Sir W^m. & you will make a much better fight for me than I can myself—& I give you full power—I shall not say more to Reeve, except through you.

The note to Harvey from Reeve, written on 24 April from King William St., Strand, was copied *verbatim* by Harvey and stated:

I write to thank you for the June patterns; the colouring is quite alarming; I have submitted the case to Sir W^m Hooker agreeable [*sic*] to your request; and regret that I am unable to answer your letter more fully, as I intended to do, in consequence of Dr. Hooker who has promised to write to you, having run away with it.

I have compared the May plates with the patterns & have been obliged to send five out of the six for more work to be put in, at an advance of price; and at which advance they decline to proceed further.

The crowded nature of this period of *Phycologia* correspondence inevitably led to much crossing of letters in the post. One such event caused Harvey to write yet again to Joseph Hooker on Monday, 27 April, even though he had sent the above on that same day, having penned it on Sunday, 26 April. The need for a second missive arose from the receipt on that Monday of Joseph Hooker's letter written on 24 April. This chain reaction also instigated W. J. Hooker's writing to Harvey on consecutive days in that April period (28 and 29), as will emerge shortly. Harvey's letter of 27 April was wholly concerned with aspects of the *Phycologia* (Letters to J. D. Hooker, vol. 11, f. 42):

My dear Joseph

I have your letter of the 24th & wish I had half your common sense in my skull. Happy for me you allow me the use of it at times—& I am really thankful to you for your help on the present emergency. I quite agree with your advice—& have written to Reeve to that effect—Read the enclosed letter, and when you go to town give it to him with the three patterns.—I have endeavoured to write him "soft sander"—and really mean in future to give him no cause of complaint—except he complain of my using up too much of his *chalk*.—As to *Gunn*—I have

frequently begged him to have it put on, but he has always declined—by which I suppose it is expensive. The spores would doubtless look much better with it.

The upper figure in Pl. 41—(for your information) is intended to represent a scabby piece of decayed dillisk. The lower (B) is *Ceramium rubrum* in the small box.

Whatever the advice (see below) J. D. Hooker gave Harvey (the letter of 24 April to which the above was the reply has not so far been traced), it met with the approval of both Harvey himself, as indicated, and W. J. Hooker, whom the letter of 26 April (from Harvey) with a copy of the note of 24 April (from Reeve to Harvey) inspired now to reply at some length; it is a considerable tribute to the postal services of the time that the sequence of exchanges between London and Dublin was so prompt. It should be emphasized here that one unusual habit of W. J. Hooker's is responsible for the possibility of now quoting easily from the *actual letter* written by W.J.H. to Harvey at the time, not from a transcript or copy of the letter, nor even from the (if any) first draft. This is once again the habit mentioned elsewhere in the present study—that of retrieval from accessible sources (e.g., relatives or sufficiently close friends of the Hooker family *sensu lato*) of actual letters written by Hooker Senior, for subsequent incorporation into the voluminous record files the Hookers maintained.

Advice from J. D. Hooker is probably rather accurately mirrored in the content of the letters his father now wrote (28/29 April) to Harvey: indeed, Hooker Senior virtually says as much in the later of the two missives. The earlier letter (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–1860, ff. 181/182) of 28 April opened cautiously:

I really hardly know how to advise you in the matter between you & M^r Reeve. If you *must* make your plates so much more laborious than you did at the commencement it is not fair that Reeve sh^d have to pay so much *extra* for colouring. But can you not without detracting from the usefulness of the book, & from its scientific character, bring down your subjects to what they were in the specimen plates. I should be *very* sorry that you sacrificed *one farthing* to *Lovell Reeve* of your £720. Give him one inch & he will take an Ell.—& pray do not be bullied into it. You will not easily get him to say what he gives to a colourist:—but when you come here, as I hope you will do soon, we can see Graves & arrange if anything can be done between him & you, if you must make a Sacrifice. Better still to keep to your original pattern. As far as I can see, your first 4 N^{os}. (all I have seen []) are pretty uniform:—but Joseph says the 5th No. is *much more* full of work. This you should avoid & tell Reeve you will in future:—& I really think your plates will be prettier when they are less crowded. I have before me plate IX, & I think that plate would be better & quite as useful without fig. 3. In Plate XIV. f. 5 shows nothing more than what I see in f. 2—one half of f. 7, of fig. 4 & one 6th of f. 6 would show as much that is needful as your present analyses. Again could you not give 4 greens or 4 reds on one folio stone? & save Reeves [*sic*] some trouble there? Once go beyond your agreement, in even so slight a degree. & you are at Reeve's mercy. Give him a few capillary subjects & less analyses in the broad species, w^h I suppose *must* be colored by hand. Small & numerous figures are the horror [*sic*] of colorists. Take Plate XX;—is f. 8 necessary?—less of 6. would suffice, as would less of f. 2 & one third of f. 4. & 7. In Tab. XIX, too, some figs. might be omitted without detriment to this plate.

Indeed you give good measure in all your plates, & no one could object if you have not to pay too dearly for so doing. Let me beg of you therefore to *pacify* Reeve by a promise of reducing the work on at least such parts as require coloring.

Criticism of aspects of the *Phycologia* this letter and the following do most certainly involve, but in all cases the attempt is constructive and worthy of serious consideration by Harvey.

Hooker himself referred to the second letter as a 'note', but it is hardly less long than the letter of 28 April, to which it is effectively an addendum based on receipt of the three patterns and letter for transmission on to Reeve that accompanied Harvey's letter of 27 April, this reaching the Hooker household on 29 April. This note was:

merely to say that I think your letter to Reeve's [*sic*] is exactly what it ought to be: & it would seem that, without my knowing it, Joseph has been giving you exactly the same advice as I did yesterday:—& when Father & Son agree, it may be hoped the suggestion is good.

Excuse me now if I criticize a little. the 3 plates now sent:—I do so solely on the ground that you give too much work for the Colourist to suit M^r Reeve's pocket. You do so sometimes unwittingly I believe. In Tab. XXXIX w^h I suppose has to be coloured by hand, indeed it will not look well otherwise,—I would observe that to follow that puckered outline will occasion twice as much work to the colorist as if that outline was quite even. Query, is it *always* so puckered? Again 2 fronds instead of four,—the 2 left hands placed in the centre of the plate,—would answer all the purpose of your four, & the plate would look better. There here is I think twice as much work, *at least*, as is necessary.

Tab. XXXVII. is a very heavy plate, perhaps however not intended for colouring. If it were & if only one color were used there is much work in f. 4—f. 1 does not look to me the color of this plant & the tone of color is the same throughout.

Tab. XLI. Here you have 2 species on one plate. A is a parasite growing on a Fucus. Now all those laciniae of the Fucus give a great deal of work in the coloring & if they were cut off handsomely & f. 3, 4 & 5 reduced one half, the plate would have been better, & would have balanced the figs. in B better. (Sir W. Hooker's Letters to W. H. Harvey, 1832–60, f. 212.)

It is worth mentioning here that these letters with constructive criticism were in no way apparently taken amiss by Harvey, as will become clear from consultation of the text of his letter of 5 May to W. J. Hooker (see below). Before then, however, the flood of late April letters crossing the Irish Sea had not yet been completely exhausted. Joseph Hooker had obviously written extensively, following receipt of Harvey's letter to him of 27 April (see above), to the latter with criticisms of similar import to those of his father. Harvey then also replied at some (but not quite equal) length and felt constrained in his letter, dated 30 April 1846, to set the record straight as he saw it on one apparently vital issue. So doing, he opened (Letters to J. D. Hooker, vol. 11, ff. 43, 44 [single letter]):

I have your letter of three sheets today, & thank you heartily for it—but before we proceed further let me beg leave to remark on one expression—you say "There is another great difficulty with your work that Reeve did not bargain for—You put a green, a red, & perhaps a third or fourth colour upon your stone of 4 plates, & he has an extremely difficult task & most expensive one in consequence."—Now give me leave to say, in the gentlest manner possible to your informant that this assertion is a "REEVE"—let that be a new noun for a double edged [word illegible]. The TRUTH is—I did put 2 colours on the two stones which I finished at Kew—for the purpose of securing variety in the first number:—but on *all* the stones I have drawn since I came home—I have INVARIABLY put but one colour on each stone of four plates. If therefore Reeve complained to you of my "practice" in this respect—he was humbugging you. Let him show the stones, say I. But I trust you will believe me. I have drawn 45 plates for him; only 4 of these were in quarto—pairs of 2 colours—so that 41 were drawn separately.—Take care that he is telling us truth about the colourer.

I was thinking that perhaps Pl. 34 would do to be partially coloured; say, to colour the main stem & one or two branches, & to leave the rest in outline. If

you think so, you can let Reeve off with it thus. If not, let him flounder about a little longer. He deserves to be in a mess for having told "Reeves", for effect.—

I have not written to him anything about the colouring of the June number—not wishing to interfere with what you may say to him, after receiving my letter of Monday last.—

Aside from the obvious importance in other directions, it is interesting to note that this letter gives a measure of the extent to which Harvey was already, even in the early stages of the work, preparing ahead of matters. Harvey had at this time drawn 45 plates; that is, he was half way through the plates required for part 8 at a time when in publication terms the work was in the month between parts 4 and 5. Plate 34, very precisely referred to in the letter, appeared in part 6 (June, 1846); it figured the red alga *Odonthalia dentata*. Harvey's suggestion that [in fig. 1] the main axis and one or two branches alone should be appropriately coloured, leaving the rest of the gross plant merely in outline, was not followed; the whole of fig. 1 is coloured. However, his suggestion was not wholly neglected since the majority of the other figures (2–9 inclusive) show either no coloration of any kind or a minor amount for contrast purposes. Figure 8 (tetraspores) is the only one to show full colour, whilst 3, 4, 6 and 7 have only the actual spores coloured in. The reference in the last paragraph of the letter to Harvey's letter 'of Monday last.' concerns that which he wrote to Joseph Hooker and dated 27 April.

The letter from Harvey to W. J. Hooker, of 5 May 1846, exemplifies the former's ready acceptance (referred to above) of legitimate constructive criticism. It also shows in its reference to the two letters (28 and 29 April) from W. J. Hooker that the vagaries of the postal services were even then not above reversing the order of receipt compared to that of sending: 'Thank you much for your two letters, the last written of which arrived first.' In the rest of the letter (W. J. Hooker, *English Letters*, vol. 24, f. 246, 1846), apart from general acceptance of the plate criticisms made, Harvey also reiterated the rejection of Reeve's complaint about more than a single colour on individual stones (*cf.* the letter to Joseph Hooker, 30 April):

Your criticisms on my plates are very just—& shall be carefully borne in mind in my future work, when it shall be my special study to save as much labour to the colourer as doing justice to the subject will admit of. I know I have an insatiable fancy for crowding as much as possible into a plate—thereby giving myself a great deal of needless trouble. This shall be corrected, & I shall also give fewer small dissections, & only such as are *necessary* to illustrate the species. The plates that I am now drawing are all filiform things, & will require very little colour.

One of them I fear you will cry out at, as there are no less than *seven* (!!!) figures of the natural size!—seven bunches, not of greens—but of reds. This over-load is however, *Gelidium corneum*, a plant so variable that a folio has been filled with it in *Hist. Fuc.*—and certainly none of my seven figures are at all similar.

Reeves [*sic*] has been romancing when he told you I was in the habit of putting different colours on the same plate. The *only* cases in which I have done so occurred [*sic*] at Kew; the *two first* plates that I worked on!—He made complaint at the time—But neither did I repeat the offence. Do not mind *all* he says therefore about the great additional trouble of the last numbers. The very first plate in the book is as difficult to colour as most of the others—& so is Plate XV, which passed without remark.

He has not yet written to me in reply to my letter.—

Thus, the general picture that emerges from exchanges at this time is one of adjustment of ideas in the direction of practicality from idealism, consequent on increasing experience of the techniques, information, personalities and working patterns involved.

Although mostly preparation of the accompanying text was not so time-consuming as that of

the plates and could therefore rest until rather nearer the proposed publication dates of particular parts, Harvey did not generally indulge in brinkmanship there either. On 11 May 1846, he wrote to Berkeley (Berkeley Correspondence, vol. 6, GREV to HOO) requesting details of synonymy for *Rivularia Leclancherii* of Chauvin and *Chylocladia reflexa* Lenormand (*Chondria reflexa* of Chauvin), since he had not been able to obtain Chauvin's publications ' & both these plants come into my July number, for which I am now preparing the MSS.—'. The same letter established that two of the free copies that he dispensed in Europe went to Kützing and Lenormand; from the former, he received the parts of *Tabulae Phycologicae* . . . , and from both he received (or at least was sent) specimens of algae. At this stage, monthly parts must be presumed to have been reaching people not too distant from London, even though well into the provinces, relatively quickly; coaching and/or train services would certainly have permitted that to some areas. Thus, Harvey, in this letter to Berkeley, felt that already (it was only 11 May) there was point in commenting on and soliciting an opinion from Berkeley about, the May issue of *Phycologia*:

I hope you like the May number. The colouring is decidedly improved, & Reeve promises that it shall be well looked to in future. We must try & keep him up to his promises.

Harvey's 11 May 1846 letter to Berkeley is of very considerable importance for a rather different reason. Although it is clear from subsequent correspondence that Harvey had discussed the matter previously with Joseph Hooker, perhaps face-to-face during one of the visits to the Hooker home at West Park, Kew, this letter appears to represent the first clear mention of a proposed work that was eventually to replace the *Phycologia* as the principal algal concern in Harvey's mind. This did not, of course, occur until the progress of *Phycologia* made it almost wholly a routine matter. Harvey commented to Berkeley:

I have thoughts of a "Centuria Algarum Maris Australioris"—same size as Phyc.—to be completed in 4 quarterly parts, each of 25 plates. I have plenty of good materials from V.D.L. and C.B.S.—not to speak of the Antartics. If I see a prospect of 50 copies being sold, I shall go on with it.

This represents the framework of the early form of thoughts about that which finally (but never completedly) appeared as the *Nereis Australis* (1847–1849), subsequently building into *Phycologia Australica* (1858–1863).

Over this early May period, Hooker Jr had been looking on Harvey's behalf into the financial background of colouring of plates in these works. In his letter to Harvey of 28 April (see above), W. J. Hooker had already cautioned that it would not be easy to get Reeve himself to admit what he paid a colourist; W.J. had then suggested a discussion direct with Graves (the colourist well known to the Hookers and often employed by them, as well as by Reeve in works of this type) about the problems and costs. Doubtless father and son had in their various spheres carried this further, presumably in Joseph's case concluding that there being no immediate likelihood of a Kew visit by Harvey, it would be advisable to forward the matter by their intermediary discussion and letter from the colourist. Joseph Hooker was obviously on the move at this time, since Harvey's letter of 12 May 1846 (Letters to J. D. Hooker, vol. 11, f. 45) from Dublin to him opens:

I hardly know where this will catch you, but if it miss it is not of much consequence.

Thank you for Graves's letter, and your comment upon it. We have established at least one thing—that R. allowed *shamefully* little for the colouring, & he is now quite excluded from my pity. Money he shall have none from me—but I *will* condescend to give him less work—& then, if he again transgress, I will raise a hundred tongues to snap at him. I think there can be no harm in letting him know that *some* have discontinued the work from disgust at the colouring.—

Had I not the advantage of your letter giving me an insight into the true nature of the case I should have been inclined to pat R. on the back—having had a most *frank* (seemingly) & *affectionate* letter from him yesterday—& his having declared his willingness to pay “twice as much for the colouring as he had formerly planned.”—You would not, by his words, suppose that the magnanimous resolve was *not* to make two bites of a cherry.

The May number is certainly the best number yet *in colouring*—& he promises that June shall be a facsimile of the patterns.—I hope you gave him the 3 July patterns I sent you.—Reeve (kind man) “hopes I will not make the plates *too reduced*,” as he “likes as full a plate as he can get for the price.”—(!!!)—always provided he has not to pay for it.—

The later paragraphs of this same letter included further written reference to the proposed work on southern algae, with which Harvey had regaled Berkeley. The letter from Graves, apart from establishing Reeve’s niggardliness in Harvey’s mind, had clearly pleased him in regard to the possibility of having coloured plates for the new work:

I am glad to hear Graves speak of 6/- or 7/- as being a *fair* price for *good* colouring. If it could be done for this I should be tempted to colour the “Century”. It would be a great thing if but 50 copies could be coloured in a batch—as I fear not more than that number will sell.—. . .

Harvey obviously still thought Joseph Hooker to be away from Kew on 15 May, when his next long missive was written on the subject of the new project, and he therefore addressed his usual extended thoughts on the matter to W. J. Hooker (English Letters, vol. 24, f. 247, 1846):

As Joseph is from home, & I know not how long he may be absent, I write to you on the subject of the “Century of Algae”, the plan of which we have arranged between us. He has probably told you all about it.

I wrote to Reeve to know the expense of getting up a Vol. of 100 plates & letterpress—and he writes me in reply—“I have been calculating whether we could make you any offer to publish it at our own risk; but find we could not undertake it unless you would guarantee a sale of 75 copies within a given period, say a twelvemonth from the completion; that is, that if at the end of a twelvemonth we had only sold 65 copies, that you would then take 10. If we had anything to do with the publishing, it must be coloured by hand, and well advertised on all our Wrappers. I think moreover it would be much better to bring the work out complete £3. 3. 0.—not in parts.”—xx “as I said before, if you would like to guarantee us 75 copies at the trade price £2. 7. 3, we would undertake to produce the Book in first rate style.”—So far is Lovell’s offer which is an odd one enough—as it may be translated—“Give us all the profits, & you are welcome to the losses.”—Of course I could enter into no *guarantee* of the kind, but as I should be very glad to get the work published, not only without any *profit*—but even at a *moderate loss*;—and as I think that Reeve, by proposing terms of any kind, shows a *wish* to take the Book—if you will afford me your kind advice and assistance as Ambassador between “the high contracting parties”, I am not without hope that a *reasonable* bargain may be struck. A *great object* with me in publishing it is, to *give away* a certain number of copies to persons in the South, like Gunn, by whom I hope to be paid with plants in return. For this purpose I am willing to sacrifice £50—that is, to take from Reeve 25 copies at 2/3 *price* or £2.—*As Author*, I ought to have this little advantage over the trade. It is evident from his offer that the sale of 75 copies would repay him. I therefore take *one third* of his risk, & am willing to undertake not to give away more than 5 of these in Europe—if he require the condition. It is for him to consider whether he could sell the remaining 50. *I* think he could.—The book will be a very handsome one, the subject being quite

equal or superior to those of Phyc. Brit., and my hand being a little more practised to the manipulation than when I undertook that Work. I enclose you a projected *Title & plan*. In the letter press I mean to introduce a good deal of illustrative matter, & synoptic tables of the species of several genera—as Joseph has done in Fl. Antarc.—all which will make the work more valuable, both to the Australian & the European purchasers.—

I have mentioned the *Herbarium* on the title page, because I want to connect the book with the Herbarium, & mean to give a *begging preface*, with a notice of what we have been doing. I hope you like my *motto*, which I trust is not hackneyed, & which is very suitable to the atmosphere I live in—where I have the name of being a “*wild enthusiast*.”!

Reeve has not had the book *formally* laid before him—The enclosed plan might therefore be sent to him.—if you approve of it—and he be informed of my willingness to take 25 copies. A *prospectus* stating that “if 50 copies be subscribed for”—the work would proceed—might bring in that number.—If possible, a *share* in any future profits, (though I fear they would not amount to much) might be stipulated for. But I am quite willing to waive this point. And now I ought to apologise for asking you to undertake this troublesome affair—only that all apology would come with a bad grace,—and so, I must leave it to your good nature to pardon me. You made such a capital bargain for me before that I feel confidently you can pull me through now much better than I could myself.—& I have too often proved your friendship to doubt your willingness to help me over the difficulty. And so, my dear friend, I must leave it in your hands, to do or not to do as you shall think proper. If the thing were settled, I should begin to draw immediately, as in a week I shall have the *Phycologia* to *November & half December* completed.—

This letter demonstrates very clearly the approaching routine status of the progression of *Phycologia Britannica* and the extent to which the southern algal project was now Harvey's prime concern. It is interesting that, however much there was cause (or at least seen by Harvey and the Hookers to be so) for complaint as to the way Reeve had conducted certain aspects of the publication of the *Phycologia Britannica*, there seems to have been little or no hesitation in deciding to approach the same publisher in connection with this new venture. Better the Devil you know . . . ! In these so similar circumstances, of course, the Hookers were again clearly going to constitute the primary mediators between author and publisher.

However much this was accepted by both, Joseph Hooker at least felt he had first to clear up one matter that was troubling him. The letter expressing this has not so far been traced, but from Harvey's letter of 22 May in reply, Joseph having by this time presumably returned to Kew, the nature of the matter is abundantly clear. (Letters to J. D. Hooker, vol. 11, ff. 46, 47; single letter). Joseph was, perhaps understandably, disturbed as to the mutual interference likely in content and sales between the new southern project (Harvey) and the southern algae portions of the *Erebus* and *Terror* voyages in which he (Hooker) took part and would author/edit. Harvey's response was understanding but firm: ‘When first I contemplated a book on the seaweeds of the South, I never for a moment supposed that it would interfere with your Flora—no more than the Phyc. Brit. does with the British Flora.’ The remainder of that letter has much content concerned with the *Phycologia Britannica*, in that Harvey (explaining his objectives in proposing to treat the southern algae) pointed to the fact that the Board of his College Herbarium were applauding the *Phycologia* since they ‘. . . like to see such books coming out of their Walls.’ Harvey aimed to obtain ‘plenty of southern seaweeds’ by rousing via the project ‘all Alumni who may have been transported for breaking portland vases or the like to work for our Herb.’ The latter allusion is interesting—it refers to the smashing in 1845 of the Roman cameo glass ‘Barberini’ [= Portland] vase. Found first in a marble sarcophagus at Monte del Grano (near Rome) in the mid-seventeenth century, this vase was placed in the palace of the Barberini family before being sold for 1000 guineas to Sir William Hamilton in

1748. Bought eventually (1785, for 1800 guineas) by the Duchess of Portland, it was lent in 1810 to the British Museum and was completely shattered, by a vandal (William Lloyd), whilst it was on display on 7 February 1845. Very skilfully reconstructed from existing Wedgwood jasperware copies, it was then restored and finally bought by the Museum in 1945. Last rebuilt in 1949, the vase requires further breaking and reconstruction since the adhesive employed has become brittle and discoloured. Reconstruction, about to be undertaken (*Independent*, 2 June 1988), will employ epoxy resin which should last for 200 years.

The letter to Joseph Hooker of 22 May also contained passing reference to a review of the *Phycologia* in *Revue Botanique* (see Appendix III, 4). Asking for details of this latter journal, then unknown to him, Harvey wryly added: 'I am a little curious to see what they say of us. Lenormand writes me a most flattering rigmarole,—but so he ought, as he gets the book free.' Further of interest here, the letter indicated Harvey's firm hope to be in London in September, '... if you will then be at home'. Lithography, finally, played a great part in Harvey's life at this period; the terminal comment referred to specimens, received from Joseph Hooker, which had not yet been looked at—Harvey '... Being particularly busy this week finishing up a box of stones ...'.

Weight of commitment was not simply Harvey's problem. In a letter dated only to 'Kew. Friday Eve', William Hooker wrote to Harvey regarding the latter's proposed arrangements with Lovell Reeve for the work on southern algae. 'Friday Evening' could here indicate either 22 May 1846 or, more likely, 29 May; Harvey's letter setting out the matter was written on 15 May from Ireland and date-stamped 16 and 18 May. Amongst the impressive list of involvements with which the letter opened, Hooker listed journeys to Hampshire to join his family, his wife recuperating there at this time. These involvements meant that (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–60, f. 183):

I have scarcely had time to consider your proposed arrangement with Mr. Reeve. And now that I have as I think carefully read the letters it does seem to me that Reeve's proposition is more advantageous to you than your own. That is, if I understand it correctly, you propose to insure him a sale of 25 copies, or, in other words, to take that number yourself, while he says "you are to take 10 copies, *if at the end of the year* the number of sold shall be *only* 65." Now, seeing you are to gain nothing, had you not better bind yourself to take 10 rather than 25 copies?—& then if you want to *give away* more, for that is your way of doing *business*, you can always take more, & always no doubt at 2/3 price;—at least I would *make* him do that. Do not yield too much to him, for it is a bad precedent, & I think it is easy to see he w^d. like to publish the work. All you have to do is to drive him as hard as you can, & make as little sacrifice as you can. Never fear about his making a bad bargain for himself; he is not one of that *destiny*. I would not if I were you show myself too eager about the thing. If you like I will call & speak to him on your behalf, unless you think of coming yourself. Your title is good & your motto quite unobjectionable. You will get lots of Algae by your liberality if you give cautiously. I would rather, if I were you, look to be freed from loss than for any future profit:—you will never get that:—the sale will not be like the Brit. Algae:—but the Brit. Algae will aid the sale of that.

Thus, with this proposed new work the usual pattern of Hooker/Harvey detailed interchange was maintained, as was the pattern of intercession with Reeve by the Hookers. The usual 'bad business-man' image allotted to Reeve persisted and the impossibility even in those days of profiting from scientific publications was reiterated. The letter emphasizes the extent to which the works went in tandem to a degree deeper than simply overlap in currency and planning. The interaction of earlier (*Phyc. Brit.*) on later (*Nereis Australis*) involved profiting from experience of essentially the same illustrative mode approached in very similar manner, and Hooker outlined clearly the potential for sales stimulus on the work of then more restricted interest (*Nereis*) by that of more immediate interest for the then major phycological market (G.B. and Europe).

By the standards of that period some slight pause now ensued in the Hookers/Harvey correspondence saga. The circumstances behind the events of early June 1846 were explained in letters Harvey wrote on Saturday, 6 June, whilst at sea in the yacht *Charm*, and posted during a call at Campbeltown (Kintyre, Scotland) to pick up a Western Isles Pilot. To N. B. Ward, in U.S.A., he wrote (Fisher, 1869: 154):

Here I am, very much to my own surprise, and probably as much to yours. The day before yesterday, at two o'clock P.M., a friend [T.P.] called on me and offered me a trip in his yacht to the Western Islands, Shetlands, and possibly Iceland or Norway, weather permitting, if I could be ready to start at six that evening. I had much to do; first to prepare the July copy of the "*Phycologia*", then to ask liberty from the Board, then to pack up. The offer was so tempting that I made the push. We sailed at seven that evening. . .

To W. J. Hooker, Harvey was at the same time both less and more specific, the latter particularly as regards *Phycologia Britannica*. Details of the comments he then made reveal clearly the high regard that he held for Mrs Amelia Griffiths of Torquay (W. J. Hooker, English Letters, vol. 24, f. 248):

Our course from this will be through the Sound of Ilay [*sic*], but after that our plans are not fixed. We mean *at least* to visit the Western Islands & the Shetlands, if the weather be favourable, & *then* to make up our minds whether to stand westward for Iceland, or Eastwards for Norway—or (if we have got enough of it) southward for home. I am ready for any of the three, liking them in the order in which I have named them. *Iceland* was named before we left Dublin, but I now find we have no chart on board, except the maps in your travels—but we have a chart for Norway—so there is more probability of that. The weather is delicious—only not quite breeze enough. I never saw tropical seas more comfortably smooth, & brilliant.

I left Dublin in such a hurry—having only just time to pack up a few things—having to write up 4 descriptions for Reeve—that I am wretchedly provided with paper. I have only half a ream. This will do for the rarer plants, if we only go to the Western Islands—and I shall bring the Algae, except the very perishable ones, home in the lump. If I can I will get more in Campbeltown. The next port will, I suppose, be Tobermory.

Our yacht is a fine one of 40 tons—and very comfortably fitted up. I should not mind making a much longer trip in her. There are *five* of us in the party, and we have *four* sailors. I cannot say that pulling the ropes is the most delightful of occupations to unused hands, but as yet we have had little of it. We all lend a hand.

I send off to Reeve by this post the Copy for August & September—and as I have requested Mrs. Griffiths to oversee the colouring of the patterns—I hope the *Phyc.* will not suffer by my gadding. I have begged her, should she find it too troublesome, to send them to you—that Fitch might colour them—but as Mrs. Griffiths is a good colourist, I suppose she will not find any difficulty.

Routine it may already have become, but the *Phycologia Britannica* was not yet being allowed to suffer, as to some extent it subsequently did, from some of Harvey's longer foreign trips (when it temporarily lapsed to one issue every two or so months), during the 'Gadding' of 1846. Dispatch of the August and September text copy to Reeve on 6 June indicates a strong attempt to maintain sequence.

In the event, Harvey need not have preoccupied himself with these matters; this is demonstrated by a letter to N. B. Ward, written still from R. Y. *Charm*, but this time from off Caithness, a good deal further north, on Thursday, 18 June (Fisher, 1869: 155):

Alack-a-day! my nobles* have come to ninepence, and instead of a three months' cruise, embracing Iceland and the Shetlands, we are now on our homeward course, having merely "marked off" the Hebrides and Orkneys. In so hurried a trip I have had few opportunities of botanizing, indeed have been but little on shore. We go down the east coast of Scotland, and intend to take the yacht through the Leith Canal to the Clyde, then probably to stand over to the Giant's Causeway, where I mean to land, and hope to reach Dublin by June 30th. As my northern tour is frustrated, I shall then be quite open to the projected Irish tour, and need not repeat what pleasure it will give me if you make party with me in it.

Harvey at the same time presumably communicated this breakdown in plans direct to W. J. Hooker, for the latter, in a letter dated only to 'Kew. Tuesday Eve.' (which from the information in the 18 June letter to Ward must have been that of 30 June of 1846) wrote to Dublin that (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–60, f. 213):

You will be in Dublin I suppose by the time this reaches that place, & you will neither have seen Norway nor Iceland. I do not know what people keep Yachts for if it be not to go & see interesting places. However you have had a holiday & no doubt a pleasant excursion & I felicitate you upon it.

From general references in correspondence at about this time, it is clear that the *Phycologia* was not, for whatever reasons, receiving as much publicity as many, including Harvey himself, felt to be just and appropriate. Perhaps one of the most likely reasons for this is suggested in a letter, some years later (14 February 1849), written by Lovell Reeve to Milliken in Dublin (Lovell Reeve Letter Book (Drafts), 1847–1872, ff. 56–57); however, see for a rather different viewpoint, the situation explained in Appendix IV(3). It seems that Lovell Reeve's letter to Milliken stated:

Respecting advertisements, we advertise so little ourselves in the daily papers that we are unwilling to expend more than sufficient just to introduce our works in connexion with your house, say to the extent of about two pounds, which with the like sum on your part, would furnish sixteen 5/- insertions.

More specifically on the point of *Phycologia*, much the same message emerges from the earlier letter, quoted more fully later, from J. D. Hooker to Harvey (7 August 1846) anent Reeve's general meanness as it affected the *Phycologia*.

That man Reeve; every one calls him the most stingy chap in London. In less than 6 months *without advertising* he has a sale of 200 copies: what in all the world do either you or he expect?—Do remember that it is not *Punch*. . . . Reeve wants us all to puff to save him the expense of advertising. . . . What a pretty fortune he hopes to make if a book extend to 60 parts, commences to pay before 8 are well out. Reeves [*sic*] meanness is beyond all bounds. . . . A gentleman here the other day wd. have taken a 4th copy of *Phycologia* if he had known they were to be had; but the advertisement he had never seen. . . . If Reeve had a grain of sense he would have & would still send 50 copies of No. 1 of your book to as many good book-buying families & ask them to subscribe (with a list of subscribers names). For the future I point-blank refuse to procure a sale for a man who will not, out of the most disgusting avarice, exert himself in the regular business way. . . . Forbes. . . is equally convinced with myself that Reeve is not doing your book justice, it is indeed a common matter of discussion with us & Reeve's avarice a Proverb.

*A 'noble' was an English gold coin of Edward III, struck from 1344, that (up to 1461) was worth (valued at) 6/8d. It was replaced in 1464–5.

Given this background, it is perhaps not surprising that Areschoug wrote from Göteborg to M. J. Berkeley (24 June 1846; Berkeley Correspondence, vol. 1, ABB-BRO):

Opus Harveyi mihi plane ignotum—omnia emere plane est impossibile

nor that John Ralfs should enquire, also in a letter (19 June 1846; Berkeley Correspondence, vol. 10, RAL-THW):

How is it that the *Annals* does not review Harvey's *Phycologia*?

Lenormand, to whom Harvey sent presentation copies of the *Phycologia* (see the quotation, earlier, from the letter of 5 March 1846, Harvey to Berkeley), was one of the few continental workers already to be familiar with the work; he commented on 26 June 1846 to Berkeley (Berkeley Correspondence, vol. 8, JER-MON) that:

il[Harvey] a eu l'obligeance de m'adresser déjà les trois premiers numéros. J'en ai été enchanté. Cette publication aura le plus grand intérêt pour tous les amis de l'algologie.

The potential publicity-sales interrelationship was clearly leading to heated pen-nibs in the households of both principals in the matter. The partial quotation above from the letter of J. D. Hooker to Harvey, 7 August 1846 (Letters from J. D. Hooker, GRA-HAR, vol. 5, ff. 231–234; single letter) was a section of Hooker's reply to Harvey's missive of 5 August (Letters to J. D. Hooker, vol. 11, f. 50), in which latter Harvey had complained:

I have had some disagreeable correspondence with Reeves [*sic*] but we are all straight again. He complains sadly of the expense of the *Phycologia* & also that the sale is so slack—still considerably under 200 copies—& that he is carrying it on *at no profit whatever*—&c. This is unfortunate. How can we promote the sale?—Could anything be done in the puffing line at the British Association? Advertisements are of little use—but were a man like Forbes to mention the matter among the Red Lions possibly we might get off a few copies. Do you know him well enough to talk to him about it. I feel delicate of writing—but I will ask Ball or Thompson to write—& talk. I wish that Reeves [*sic*] may make a little, not merely because we shall get on so much more agreeably [*sic*]—but because the Australian affair hangs so much on his good humour. Mind you *puff* me well whenever you can!—Entre nous, the *June* number is execrable—I can't bear it in my sight—the colouring of the purple plates is totally unlike the patterns, unlike nature & certainly unlike art. July is better—& I hope there may be no more such blunders, which will ruin the book.

The letter in which Joseph Hooker cautioned Harvey that the *Phycologia* was not *Punch* (see above) continued as a response further to Harvey's 5 August missive:

. . . persuaded old Dillwyn to take a copy [of the *Phycologia*] & perjure himself, for he made an oath once that he would not take a book in parts, & has cut my *Flora Antarc.* . . . I solemnly [*sic*] assure you that I swear by the book wherever I go. E. Forbes is charmed with it though faults it has (thanks to Reeves). What a pretty fortune he hopes to make . . . he is frightening you. My Father at great trouble got a single 8^{vo} stone done with a *new* plant to substitute a less interesting species already sent on a double 8^{vo} stone, which was to be used on a future occasion; & what do you think he gets for his pains?—a remonstrance from Reeve on the expense entailed by the difference of working off a single from a double stone, amounting to 10/6 at *his own* calculation, = 5/- probably at any one else's. . . . His treatment of Graves* is disgraceful, he has cut 1/8 of the Magazine plates so that poor Graves does the work as much for his own interest

* Graves was the colourist employed by Reeve as a general rule. See earlier.

in it as from pecuniary profit. It is Gs. daughter, poor starving thing I fear, that has taken up your colouring, Graves says that he would not take it up at all without doing it full justice & for that he must at his lowest estimate have double what is paid, Reeve had the impudence I believe to offer 1/4! . . . I know Forbes intimately & will talk over the subject with him with pleasure on Monday next. . . . Ask him [Reeve] what he thinks of the coloring of yr. *Tab. XLV* for your own sake do not give in one inch. & if he complains of the colorist work being too heavy, insist upon a return of what he pays & the man's name (if not Miss Graves for he constantly shifts) & we will get Estimates from several colorists in Town as to whether such pay is sufficient even for the very lightest work.

I fear my dear Harvey that I do not give you much consolation in this matter, but I can see you are as troubled as I was at about the same stage of progress in my work as you are in yours & can assure you that being strict with Reeve was the only resource left me . . . Write me how you get on & what are the specific grounds of complaint, I will blow R. up with delight. I will say all the good I can of your book, but will not puff, or push, or be otherwise the tool to an unavailing man, by doing for him what his meanness prevents him from doing for himself. Whatever you do, pray do not for the sake of science, yourself & the public good let go one shilling of the profits. . . . So hold on, & if, as he may, he still complain of your having put work over & above the contract, you may hint at the possibility of your considering about paying the difference *to the colorist* & receiving receipt from him (the colorist) provided Reeve's estimate for what coloring was originally stipulated for, be sufficient.

Self-explanatory on the subject of author-publisher relationships, and a somewhat outstanding example of commerce and science not seeing eye-to-eye!

Other subjects *were* treated in correspondence between Harvey and the Hookers during this month of August 1846. Although most are not relevant here, queries and responses on the subject of algal biogeography do establish that Harvey had even thus early given some thought as to the form of the 'final' Introduction to the *Phycologia*, whilst having no intention of definitively framing it for setting and publication until very much nearer the end; he commented to J. D. Hooker (Letters to J. D. Hooker, vol. 11, f. 51) on 27 August:

I am hardly now prepared to strike out new *regions*—though I hope to be so before I come to the *Intro.* to *Phyc.* this time four years.

By early September of 1846, Harvey was already drawing on stone for inclusion in the December number of the *Phycologia*. On 9 September (Berkeley Correspondence, vol. 6, GREV-HOO), he informed Berkeley that *Peyssonellia* [*sic*] *borealis* 'will be figured' in that number, and he commented that specimens of *Codium amphibium* Berkeley had sent were 'much finer than the specimens from which I figured.' On the same date (letter to W. J. Hooker; English Letters, vol. 24, f. 251), he was indicating he would have to turn down a few days' fishing on the Bristol Channel, to which Joseph Hooker had invited him:

I hardly think it can be managed. I shall want to make *four* drawings on stone for the Dec^r number, and hope Mr. Fitch can allow me to do them in his room. Besides, I have refused Mrs. Griffiths on the plea of hurry, & if I have time to go anywhere it ought to be to Torquay.

Although there is no evidence for some weeks thereafter of anything but smooth running of the *Phycologia* system, since the work drops out of reference in most correspondence then, it did not become wholly neglected in comments. Harvey, in the field in Roundstone, Ireland, wrote to Robert Ball (Fisher, 1869: 156) about the importance of the dredged first find for Britain of *Peyssonellia* 'a Mediterranean thing, in fine fruit, a new species (*P. borealis*, *Harv.*) but having all the generic characters quite perfect.' (22 August 1846). Not long after, he was back in Dublin and hard at the *Phycologia*; 'I must draw forty-eight plates for Reeve between

this and Christmas, which will keep me pretty busy.' (Harvey to Robert Ball, 24 October 1846; Fisher, *loc. cit.*). Joseph Hooker and Berkeley continued to correspond on other matters, since the latter was contributing to the current cryptogamic treatments in various numbers of J. D. Hooker's *Flora Antarctica*. The existence of that need to correspond led also to commentary on other subjects, one of which was the *Phycologia*. Joseph Hooker wrote on 15 December (Berkeley Correspondence, vol. 6, GREV-HOO) that:

Harveys last number is a mixture of very good & very bad. True it is that colored lithograph does not do justice to his efforts; but there is good reason for that, as it is the defect of the method & no other method is cheap enough. They would be vile in black, & H. does not do them well enough to be engraved even could it be afforded. I fear there is no other way of *lithographing* algae, except CUTTING into the stone as the German's [*sic*] do which is more expensive than printing and unknown as an art in England.

By February 1847, Harvey was well into his *Nereis Australis*, also a Reeve publication, and comparison by both principals of the production and processes was leading to some interesting correspondence! Harvey wrote to W. J. Hooker on 16 February of that year (English Letters, vol. 25, f. 210):

I am much obliged to you for the assistance of M^r Fitch in colouring my *Nereis* plates—which I fear has been tedious. Reeve is *highly* satisfied with the 25 he has just received, & has written me a long letter, wherein he says that the work I put into the *Phycologia* plates is not nearly so good! See the bad effects of paying a man! if what I do for nothing are so much better. I am not conscious of having taken more pains with one than the other—but if there be improvements it must be owing to practice.

These two rather similar works were not the only projects Harvey had on the go at that time. A slightly later letter to W. J. Hooker (29 March 1847; English Letters, vol. 25, f. 211) makes the situation then clear:

I am by no means so industrious as you give me credit for, and have not so much as looked at a Mexican plant since I sent off your set! So that it will be some time before I have my first part ready. Just now that I have finished the MSS. for 1st. part of *Nereis*—I must finish off Gunn's Algae for the Journal before I enter on anything else—& shall attack them immediately. They ought to have been done a year ago.—I have then to work out Bowerbanks Corallines—rather a long set, I expect—& those that Joseph promises me from Mr. Darwin—These, with 24 plates for *Phycologia*, & 25 more for *Nereis* will give me very full occupation till mid-summer—then I may be ready for Mexico—just before the holidays.

From here onwards, although Harvey's correspondence has much in a similar vein to that quoted earlier, it primarily concerns works other than *Phycologia*; the *Nereis* and Harvey's intentions to make visits to foreign herbaria, mostly in France and Germany, supplant it for the most part in the first half of 1847. It is clear, however, that the *Phycologia* was by no means completely out of mind, Harvey's or his correspondents'. In May 1847, W. J. Hooker was convalescent in St Leonard's-on-Sea (Hastings), following a rather bad bout (beginning in late March) of ear abscesses that required operation. He continued to correspond with Harvey during this time and appears to have lost no opportunity still to promote the sales of *Phycologia*. He wrote (14 May; Sir W. Hooker's Letters to Dr W. H. Harvey, 1832–60, f. 200):

I hope I have picked up a Subscriber for your *Phycologia* in the person of my Hastings Surgeon an F.L.S.—but rather rusty as a Botanist.

On the strength of my connection with Reeve I offered to write & ask for it at Booksellers price & Reeve is a great goon if he do not catch at him, & he likely will hook him in for the *Nereis*.

Harvey, for his part, was still striving manfully at the composition of future plates and consulting in the matter his long-time helpers such as M. J. Berkeley and Mrs Griffiths. To the former he wrote on 14 May concerning various taxa in the genus *Conferva* (*C. crassa*; *C. linum*; *C. sutoria*). Berkeley had figured *C. sutoria* in his *Gleanings* (Price, 1985) and Harvey sent material he thought to be of the latter for confirmation:

As I wish to figure all three in one plate, you will much oblige me by saying if this be your plant, and if not, still more so by favoring me with a scrap of the true one. Also, if you happen to have an Agardhian specimen of *C. linum*, which I have not, I shall feel obliged by your comparing my *linum* with it. Mine (from Wicklow) is more robust than the Devonshire plant, published by Mrs. Wyatt, but the difference is hardly sufficient to build a species upon. (Berkeley Correspondence, vol. 6, GREV-HOO).

This May–June period of 1847 reinitiated a short burst of letters, parts of most of which had relevance for the *Phycologia*. It is probable that Harvey, in Dublin, had not by then received W. J. Hooker's letter of 14 May from St Leonard's when he wrote (18 May) to Hooker (W. J. Hooker, English Letters, vol. 25, f. 213):

Mrs. Griffiths has been making kind enquiries of me about your health—she herself has been laid up this spring with a severe attack of Rheumatism which confines her very much to the house—She is now better but only able to get about, & that seldom, in a chair. She is however as fresh in mind as ever, & I have had some *critical* letters from her lately. I have made a sad affair of *Furcellaria*, not figuring the true fruit! Scarcely had it been published when Mrs. Griffiths sent me specimens in full fruit, & utterly different from anything I had before. Had I asked her before making the figure—, it would have been all right. Now, I must give a supplementary plate, for the blunder is too gross to be slurred over. . . . The Nereis &c. has taken up more of my time than I anticipated, and it will take every moment between this & vacation to put the *Phycologia* in a state to be left. I must finish & despatch the plates up to Feb. before I leave home in June. I fear the 2nd part of Nereis will not see the light till next year.

Also probably crossing was another letter to Harvey from W. J. Hooker (Sir W. Hooker's Letters to Dr W. H. Harvey, 1832–60, f. 202), whilst he was still in St Leonard's-on-Sea on 23 May; postal franking was dated 24 May and 25 May respectively. The letter included:

Our Hastings Surgeon is delighted with your *Phycologia*. This is a poor coast:—few rocks & all muddy.—a good excuse you will say for my idleness.

Harvey, meanwhile, writing to Hooker on 25 May (English Letters, vol. 25, f. 215), was replying to the earlier letter (14 May) from Hooker announcing the probable Hastings subscriber.

The first part of "*Nereis*" is now out of my hands—& Reeve promises it on 1st June. Had you been at Kew I could have wished you to see the Title page & preface for criticism. But there is no time. . . . I hope poor Reeve may sell as many as will cover his outlay, for the sake of *future* books, if for no other—and to keep him in good humour. . . . Thank you for getting the Hastings Surgeon for *Phycologia*. A subscriber living on the Coast, is worth two inland—as he is so much more likely to meet with other subscribers. Besides, a Surgeon in a fashionable Watering place is as good as a column in the Athenaeum. Are you aware that *two* of the plates in the 1st Number had lately to be *re-drawn*. . . .

The end of this letter is not given here; it covers a point of considerable importance that is discussed in detail later in this paper (Appendix IV: 2B) and will not be considered further at this time.

Despite Mrs. Griffiths's ill-health at this period (see above), it is no surprise that Harvey saw fit on 18 May to comment on how fresh in mind she remained, nor is it surprising that he himself was then pressurized by the things he needed to complete before his vacation. Presumably it was this crowding that had made him then write to Mrs. Griffiths [letter not traced] in such a way as to cause her to respond on 27 May (curiously, this letter is filed at Kew, Archives Room, as f. 203 in Sir. W. Hooker's Letters to Dr. W. H. Harvey, 1832–60) that:

My daughters will be happy to do their best to colour the patterns you may require but would be glad to have them as early as may be convenient, lest they be from home & they would have to be forwarded, which would cause delay.

There is no guarantee that this relates solely or at all to the *Phycologia* (it could have concerned the second part of *Nereis*), although there seems a very strong likelihood that the former was referred to. Either way, Mrs Griffiths's clarity of mind seems hardly in question after this letter and the content of Harvey's own to W. J. Hooker on 18 May.

Berkeley had obviously replied rather promptly to Harvey's 14 May letter to him about *Conferva* [*Chaetomorpha*] (see above), for by 2 June, Harvey was again writing to him, from Dublin, on the same subject, indicating that he (Harvey) had *delayed* [!] responding to Berkeley's letter on *Conferva linum* until he was able to visit 'the habitat here' and obtain fresh specimens. He continued: 'I have now done so, & made my drawing from some, & enclose you a few dried specimens, as the authentic plants of *Phycologia*. They come from the old station, given in Brit. Flora for *C. crassa*.' There is a great deal more detailed morphological and nomenclatural discussion of the *Chaetomorpha* situation in that same letter to Berkeley (Berkeley Correspondence, vol. 6, GREV-HOO); Harvey had clearly appreciated the need to conclude very firmly on who had meant what by which use of the various specific epithets, and had not stinted effort, space or time in explaining his views to Berkeley. He terminated the letter with a postscript note that '*C. linum* will not be published till the January [1848] number of *Phyc.* so there is plenty of time to think the matter over, if our conclusion be wrong.' From the planning period that these details demonstrate, Harvey was obviously deadly serious about his statement (see above) that he had to send Reeve the plates up to February 1848, before he left in June for vacation. That he kept to his intention, even in the face of the complexities of *Chaetomorpha*, is manifest by the fact that *C. linum* was published in the January 1848 number of this work (pl. 150A; part 25). The commitment that the pressure to keep to his intention entailed probably accounts for the lack of any correspondence of significance to *Phycologia* and to movement patterns until we reach the 'Feast of St. Barnabas' [11 June], 1847, when Harvey announced to W. J. Hooker (English Letters, vol. 25, f. 220 [filed out of date order]) that he was crossing to Liverpool on Monday evening [14 June 1847], to reach London by Wednesday morning [16 June 1847]. On 13 June he confirmed to Hooker (English Letters, vol. 25, f. 217) his intention of leaving during the evening of the next day for Liverpool, but promptly (on precisely the evening when he was supposed to be leaving, 14 June; English Letters, vol. 25, f. 218) countermanded that to indicate that after all he was going to stand and canvass for the Dublin Society Chair, thereby needing to delay leaving in order to both apply and canvass. One week later, on 21 June [a Monday] 1847, he wrote concerning his canvass, indicating he could not leave 'as soon as hoped' (English Letters, vol. 25, f. 219). Precisely one day later, 22 June 1847 [Tuesday], (English Letters, vol. 25, f. 221) he announced crossing to Liverpool 'tomorrow evening' [Wednesday, 23 June 1847], being in London by Thursday [24 June] night, Kew by Friday [25 June 1847], Oxford on Saturday [26 June 1847]. All the letters of ff. 217–221 inclusive were from Dublin (Trinity College). His next, on 29 June [Tuesday], was written to Kew from Oxford, requesting (English Letters, vol. 25, f. 222) that mail stay at Kew until he returned from Oxford. He must have done that by 2 July at the latest, for by then Joseph Hooker was writing to Berkeley (Berkeley Correspondence, vol. 6, GREV-HOO) stating baldly:

all well here [Kew] & Harvey with us. in great haste.

In a sense, it is a pity that when Harvey visited the Hookers at Kew (a not infrequent event), the usual detailed interchange of data between them in correspondence naturally enough dried up until he had again left to return home or to travel on elsewhere. Information on the course of events at such times tends to be derived from correspondence between either the Hookers and other colleagues, or Harvey and his other correspondents; or between those (outside that usual pattern involving one of the principals) who were naturally enough keeping each other *au fait* with events of botanical interest in a general sense. Harvey's invoking of the maximum number of hands to form a reservoir of information and material for *Phycologia* meant that he, the Hookers, and the work itself were often the subjects referred to in that general updating of news. An example of news exchange between those not directly in the Harvey-Hookers circle (although both correspondents were closely involved with much of the phycology proceeding in Britain at the time) is provided by a letter from G. H. K. Thwaites to Berkeley (Berkeley Correspondence, vol. 10, RAL-THW), written from Bristol on 11 August 1847, in which Thwaites discussed a new species of *Sphaerozyga*, which he asked permission to call *S. Berkeleyi*, indicating that figure and description 'will appear in the "Phycologia"'.

Harvey's 'vacation' in 1847 stretched from early July until 23 August, so far as being out of Britain was concerned. On the latter date, he wrote to W. J. Hooker (English Letters, vol. 25, f. 223) at Kew from the London Coffee House on Ludgate Hill, saying that he had just returned from the Continent and wanted to stay at Kew tomorrow [i.e., Tuesday, 24 August]. No sooner had that letter left his hands for Kew than he was again countermanding the message. By the evening of Monday [23 August] he wrote again from the London Coffee House indicating that 'since I wrote this morning' his elder brother had arrived in London for a few days and he [William] was going to remain with him; he apologized for any difficulties caused (W. J. Hooker, English Letters, vol. 25, f. 224). His 'few days' probably stretched somewhat, for on 'Sunday morning' he was writing to W. J. Hooker (English Letters, vol. 25, f. 225) from 3, Ryder Street, St James, indicating that he was sorting plants and asking where he could leave a parcel for Colenso; he continued that he was going to Milltown Malbay (Ireland) to join some friends for a fortnight, that he was going to catch the Waterford steamer from Bristol on 'Friday next', going thence to Limerick and the west, and that he would be in Kew on Wednesday to say cheerio. Joseph Hooker wrote to Berkeley (Berkeley Correspondence, vol. 6, GREV-HOO) from Kew on 3 September 1847 indicating: 'Harvey is now with us, he says that he called upon Montagne [in Paris] & left his card after the dinner at Webbs.' If Harvey was already back in Kew by 3 September, then the Sunday morning letter from Ryder Street must have been written on 29 August; however, Harvey cannot have kept to his suggestion, in that letter, of leaving from Bristol on 'Friday next' for Waterford and Limerick, since Friday was the 3rd September, the day Joseph Hooker indicated to Berkeley that Harvey was with them in Kew. Apart from that, he spent time actually *in* Bristol, visiting G. H. K. Thwaites and admiring his freshwater preparations; this is established in W. J. Hooker, English Letters, vol. 25, f. 226; 20 September 1847. He then left for Ireland. Harvey was, however, in Limerick by 20 September, for it was he who wrote the letter referred to above, in which he comments on having had a tedious 36-hour journey from Bristol. Thereafter, he was in Miltown Malbay [usually now rendered 'Milltown'], in Co. Clare, on which he commented in a letter from Trinity College to Berkeley (Berkeley Correspondence, vol. 6, GREV-HOO) and written on 18 October:

At Miltown Malbay last month [he travelled there from Limerick, arriving on 21 September and returned thence to Plassey, Limerick, on 8 October] I was so fortunate as to find Ryt.[*iphlaea*] *complanata* in some plenty—& send you specimens. . .

This same letter is a generally illuminating one on the subject of that summer. It tells us both when he finally returned to Dublin—a postscript note stated 'I came home only last Saturday.' [which day would have been 16 October; the 18th was a Monday]—and gives a deal of information about his period in Paris during the 1847 summer.

From Harvey's comments in the letter of 18 October, Montagne was not pleased that

Harvey had managed to call on him in Paris at a time when he was not at home, and even less that there had been no repeat of the attempt to see him. Joseph Hooker had relayed this information to Harvey, presumably having heard by letter from Montagne to this effect. Harvey's side of the affair was elaborated in a letter to Berkeley (the same of 18 Oct.) when he said:

I had not the most distant intention of hurting the good mans' feelings and am heartily sorry if I have done so. But really my time in Paris was not my own—as I was compelled to act as Cicerone to two novices—one of them old Mr. Mackay, who required an arm to lean on—and I left in a hurry. It was *necessary* to verify Lamarck's & Lamouroux's Corallines at the Museum—& this was all I did there. I wish you could pour balm into the festering wound—when you write next.

The need to consult the collections in Paris had earlier been expressed by Harvey in his letter of 12 May 1847 to W. J. Hooker (English Letters, vol. 25, f. 212); he had there stated something of his wider intentions for the coming summer, including data on the Oxford and proposed continental visits. Paris was necessary for herbarium work before he started work on the southern Corallines, perhaps for part 2 of the *Nereis*. Harvey continued:

And being in Paris I may as well make a little more extended tour—so I have again thoughts of joining John Ball on his Swiss excursion—On my return I propose to make a short detour into North Germany—via Hamburg [*sic*] to Berlin—perhaps. There is a fine collection of Algae in Hamburg, that I should like to see, if in the neighbourhood—*Senator Binder's*. He is an old correspondent of mine & has sent me good things, *for a German*. I should also try to see friend Kützing.

It has not proved necessary for the purpose of the present paper to establish further the extent to which Harvey actually carried out the proposed itinerary, but the fact that he was away for the best part of two months would indicate the likelihood of his having achieved a major proportion of the plans.

It was probably inevitable that, with the similarity between the overall form and general aims of the two works, the *Phycologia* plates would be compared to those of the *Nereis*. Reeve himself made such comparisons, which were passed on in no uncertain terms by Harvey to W. J. Hooker in his letter of 16 February 1847, quoted earlier. Reeve's opinion was that the *Phycologia* plates were 'not nearly so good' as those of the *Nereis*; Harvey's response was that he was not conscious of taking more pains with one than with the other, and betterment must have resulted from more practice. Conscious of it or not, it seems Harvey could probably depend only on the fact that, as usual, people would see and assess things in very different ways. By 27 November 1847, Harvey was writing to W. J. Hooker (English Letters, vol. 25, f. 230) from Trinity College with a plaintive *cri de coeur*:

You have not noticed the *poor Nereis* yet in Journal. Pray give it a chance. It sells wretchedly—& I fear Reeve will give it up. I have seen but one notice of it—in the Eclectic—which praised all but the plates, which it said were like the *coarser ones* of the *Phycologia*.

The opinion expressed here on the *Nereis* is pretty well diametrically opposed to that of Reeve himself as to the plates, and doubtless reflects the probability of widely spread differences of opinion amongst those interested.

At the time this 27 November letter was penned by Harvey to W. J. Hooker, it seems that Reeve's situation was causing Harvey some concern, as well it might having regard to the extent of commitment to works in progress. He asked of William Hooker (continuation of the letter of 27 November):

Do you know whether Reeve is going back in the World ?—His taking a partner looks odd.—And he has not paid me for *two* months—a circumstance which

never occurred before. Moreover, a friend told me to look after him. These are trying times to business folk, and I fear he may have been engaging in too many concerns.

It was perhaps fear of Reeve's situation, as well as the attractiveness of Van Voorst's offer regarding publication of *The Sea-side Book*, that made Harvey seriously consider the latter and correspond on the matter with W. J. Hooker. He opened the subject in his letter of 10 December 1847 (English Letters, vol. 25, f. 231), commenting that

Van Voorst offers me £25 to write 192 pages the size of note paper (12^{mo} ?)—about the seaside commencing with seaweeds & going up to whales. There are to be 50 wood cuts for which he offers to pay, in addition. Pray tell me how much he ought to give me for making a pencil drawing on the wood—this being what I am required to do. The book is to sell for 5/—and to be quite popular.

William Hooker was favourably inclined towards Van Voorst's offer (Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–60, f. 217):

Van Voorst's offer is I trust more to your mind, especially if the 192 pages are to be on note paper such as you & I write upon & in as large characters as you & I employ. As to pay, for Woodcuts, or rather the drawings on the wood:—that must depend much on the work that is in them. I should say they ought not to be less than 5/—^s each:—say in size the 4th of an 8^{vo} drawing, which always fetches £1.

Harvey and Van Voorst reached agreement about this text, which proved a very popular item when it appeared, going through several editions and providing a medium for Harvey to advertise as further reading several more detailed works, including his own *Phycologia Britannica* and *Manual*, on different groups.

Earlier in the present account, I referred to the degree of forward planning that Harvey's movements and lengthy absences necessitated if anything like a reasonable working sequence were to be maintained. Another example of this is provided by the letter Harvey wrote on 27 January 1848 to C. E. Broome (Broome Correspondence, vol. 4, COO–HAR), with whom he was exchanging plants in order to enrich the Dublin Herbarium with Fungi, a group not then well-represented there. Receipt of specimens of the latter led Harvey to reciprocate with British Algae 'which I hope will please you—Among them are two of the very rarest and most curious on the British list—*Carpomitra Cabrerae* & *Stenogramme interrupta*. The latter will be figured in the March number of the *Phycologia*.' It duly was so figured (as plate 157, in part 27; published on 1 March 1848) and in due course led to further correspondence. In the text to that species, Harvey commented that it was the most important addition to the British marine flora since the commencement of *Phycologia Britannica*, having been discovered on 21 October 1847 by John Cocks, amongst the drift at Bovisand. Subsequently, a few days later, Rev. W. S. Hore found it again nearby, together with 'the equally rare and curious *Carpomitra Cabrerae*'. This led Cocks to write to Harvey (letter in Herb. Trinity College, Dublin), requesting that should Harvey have again the occasion to mention *S. interrupta*, he rectify the error in the date of the Bovisand first record to 'October 21, 1846 and not as described in *Phycologia* November 1847.' Harvey did subsequently (1851) correct the error, but it should be noted that Cocks's letter itself constitutes a mistake—the only error in Harvey's original plate 157 text was the year of collection, since he had the day and month precisely correct.

At about this time, Harvey began referring to himself in jest as 'Glasnevin', having just been appointed to the Chair of Botany at the Botanic Garden there. The first traced example of this is his letter of 27 January 1848 (W. J. Hooker, English Letters, vol. 26, f. 187), in which he outlined to Hooker the results of the election for the Chair (Harvey received 202 votes of the 385 voting; the next highest candidate had 71) and signed himself 'W. H. Glasnevin (Elect.)', adding 'I hope you like my new title.' Hooker's reply (3 February 1848) showed due deference

in addressing Harvey as 'My dear Glasnevin', but posed awkward questions about the possible animal nature of the supposed Chinese/Japanese 'Enteromorpha intestinalis' published as plate 154 of part 26 (1 February 1848). Harvey's very prompt reply (facilitated by postal services that one cannot but envy from the standpoint of today) on 5 February 1848 represented a humble *mea culpa*—'Alack! Alack! I have put my foot in it.' He had been incautious enough to respond to pressure of the need for copy by failing to check sufficiently. Of these letters, Hooker's of 3 Feb. may be found in Sir W. Hooker's Letters to Dr. W. H. Harvey, 1832–60, f. 224, whilst Harvey's of 5 Feb. is filed at f. 188 in W. J. Hooker, English Letters, vol. 26.

At this period, Harvey (apart from his new Glasnevin appointment) was enmeshed in other commitments such as the *Nereis Australis*, of part 2 of which he wrote to Berkeley on 31 July 1848, from Plassey, Limerick, that: '10 plates, toward Part 2. of Nereis have been finished since December last, but nothing further done, nor a word written—so I fear part 2 will not show itself before next spring. I hope it may then see the light.—'. Although he also talked of a West Coast dredging expedition and a few interesting finds, no mention was made of the *Phycologia*. That this is not surprising was further attested by a draft letter (July/August 1848), to Revd. David Landsborough of Saltcoats, that makes a similar point. Berkeley's missive on the subject from Harvey is filed in the Berkeley Correspondence, vol. 6; the letter to Landsborough is rather less direct a source, having clearly been sent (although I have only traced the draft in the Lovell Reeve Letter Book (Drafts), 1847–1872, ff. 28–29) inviting the Reverend to undertake the Seaweed volume in Lovell Reeve's popular series of British Natural History 'with coloured illustrations, on a small scale, of some fifty or sixty species'. The draft continues 'Our friend Dr. Harvey to whom we first proposed this is unfortunately prevented from aiding us in consequence of his interest in the Manual of which a second edition has been in contemplation;'. Landsborough had come to Lovell Reeve's attention in this context both from Harvey's suggestion and from the very appropriate style of his review of the *Phycologia Britannica*, published in the *Edinburgh Witness* (see pp. 148–49 and Appendix III(3) p. 203). From a further Lovell Reeve draft (same reference, but ff. 30–31) of a letter to W. Fitch, Hooker's artist and lithographer, and dated 8 September 1848, Landsborough had clearly accepted the commission and Harvey had agreed to give occasional assistance when free and near-by; at least, Reeve seems from the draft so to have presumed. He had taken advantage of Harvey's then presence at Kew to send Fitch a quarto stone relating to the illustrations for the Landsborough book so that Fitch himself could ask Harvey for assistance in arranging the figures. Reeve indicated then that he preferred the figures *not* to be taken from Harvey's work and that, in any event, they should be 'differently dispersed' and perhaps some replaced by drawings from actual plants in Hooker's herbarium.

This pattern of pressure of other commitments kept the *Phycologia* from being an active constituent of Harvey's correspondence for some time. On 23 February 1849, Harvey wrote to Berkeley (Berkeley Correspondence, vol. 6, GREV—HOO) from Trinity College regarding the 2nd part of *Nereis Australis*, the amount of progress in which since his letter of 31 July 1848 to the same recipient on the same subject being fairly small. By that 31 July, 10 plates for part 2 had been finished 'since December last' (see earlier) and at that time Harvey doubted that part 2 would appear 'before next spring'. Now, on 23 February 1849, 16½ plates out of 25 were finished, but 'It will be decidedly handsomer than the first part.' This was essentially added as a *post scriptum* and Harvey finished off plaintively: 'I only wish it would sell. I take ten copies myself by way of encouragement to Reeve—He tells me that 38 others have been sold of 1st part—Perhaps when the whole is published it will go off.'

The culmination of this background position for *Phycologia Britannica* gave Lovell Reeve what seems to have been the fright of his life. On 19 May 1849, he replied with some anxiety to a letter that has not been traced, even as a draft, from Harvey. Parts of Reeve's reply are already in print (Price, 1982: 455 and Price, 1984: 439); these sections will not be repeated here. The commencement of the extant draft of Reeve's letter to Harvey is as quoted in 1982: 455. That draft continues, in reaction to Harvey's wish to suspend *Phycologia Britannica* for a year whilst he was in America:

We have considered the matter very seriously in our Counting House and beg leave to submit the following proposition to send your stones to America just as we now send to Dublin Your copy has generally so few corrections that you would no doubt be content to leave it to the supervision of some Friends such as D^r Greville or M^r Landsborough; and that could be posted from America without inconvenience. Will you please consider of this, for your letter has thrown us into a state of considerable uneasiness.

From the sequence of publication of parts during Harvey's absence (see Price, 1984) and from a further draft in Lovell Reeve's Letter Book (Drafts) 1847–1872, it is clear that Harvey acquiesced to the suggestions aimed at avoiding suspension of the *Phycologia Britannica* in his absence. He demonstrated the work that this acquiescence entailed in a letter to N. B. Ward from Trinity College on 30 June 1849 (Fisher, 1869: 163):

My fingers have latterly been very busy, now with ink and now with colours, and they will have no rest till I get among the green leaves of the Western world. Even the days at sea have their allotted work in preparing *stuff* (an excellent word) for the printers. The greater part of the new edition of the "Manual" is in type, and I expect to prepare index, &c., on the voyage, and to finish off the letterpress of "Phycologia" for the time I shall be absent.

Reeve wrote an undated (as to the extant draft) letter to John Ralfs in Penzance, Cornwall, enclosing Harvey's MS description for *Phycologia Britannica*, plate 282 (*Enteromorpha Ralfsii*, which had been collected by Ralfs in Bangor, Caerns.; the text includes the comment 'I write these lines on the shores of America'). This draft letter can be accurately dated to between 1 and 4 September 1849. The draft reads:

Having received instructions from Professor Harvey to communicate with you on the subject of a plate intended for the Phyc. Brit. I beg to refer you to his letter &c. inclosed with this and would feel much obliged if you will favour us by returning the manuscript at your earliest convenience. The plate also is needed to be printed off in consequence of there being another plate on the same stone required for the October N^o. The favour of your early attention will greatly oblige—

That the efforts made and outlined above to maintain continuity of *Phycologia Britannica* during Harvey's absence were worthwhile is undoubted. Many letters attest to this, of which an excellent example is that written from Vire, France, to M. J. Berkeley from René Lenormand, largely on the subject of Harvey's American trip and on-going publications. Mentioning the *Nereis Australis* and the *Phycologia Britannica*, Lenormand said of the latter:

Je suis enchanté du *Phycologia Britannica* qui se poursuit avec une régularité que nous ne pouvons obtenir pour les publications qui se font en France; Ce sera le *Vade-mecum* de tous ceux qui voudront étudier les productions de nos mers.

Inspired by the marine algal riches he had seen during the American tour, and doubtless gratified by the attention he found his work to receive in the United States (he wrote to his sister Mrs Todhunter, from New York on Christmas Eve, 1849, that 'To this museum [Museum of the Academy, New York] is appended a rich library of natural history, containing most of the beautifully illustrated works on ornithology, besides a very fair set in other branches, amongst which is the *Phycologia*.'), Harvey embarked on yet another major commitment before the *Phycologia Britannica* could be completed. This was, to use his own words, a 'sort of "*Nereis boreali-Americana*"', the precise wording of its eventual title. In writing to C. E. Broome, from Limerick, on 31 July 1850, Harvey (Broome Correspondence, vol. 4, COO–HAR) described this new '*Nereis*' as 'a Quarto with 50 coloured plates which the Smithsonian Institute of Washington undertakes to pay the expense of'. Lovell Reeve was asked to estimate for the costs involved in the printing and publication of this '*Nereis*', and

produced a detailed itemised account for print runs of 1500 in Royal Quarto of each of the 50 plates, taken through all stages to finished styling as with the *Flora Antarctica* and the *Phycologia Britannica*. This account was dated 27 September 1850, but clearly did not represent adequately competitive figures, for Reeve wrote to Harvey (draft extant) on 5 October 1850, as from Reeve & Benham, producing an overall lower figure without detailed itemization:

With the view of competing for the printing of your plates of seaweeds for the Smithsonian Institute, we have made arrangements that enable us to do the whole, black or colour, one with the other, at 8/- p hundred, including supply of Ink and Chalk, proving & three proofs, and use of stone for twelve months. This is the lowest rate at which they can be printed by a *competent* workman.

(These Reeve letter drafts were entered in the Letter Book (Drafts) 1847–1872, where they occupy ff. 121–122 (27 Sept.) and ff. 123–124 (5 October).)

None of this means that the *Phycologia Britannica* was being neglected at this time; far from it, indeed—Mrs Griffiths was still engaged on seeing to that! Harvey wrote on 11 July 1850 from Trinity College to his relative, Mrs Harvey, in New York, that (Fisher, 1869: 216):

I have had many letters from Mrs. Griffiths, who is as active as ever in her green old age. She has been touring about for the benefit of her daughter's health; and only a day or two ago she wrote me a long critical letter, giving me information about the *fruit* of one of the Algae, which I had not before known, and which will cause me to put a supplementary plate to the *Phycologia*. She is a wonderful specimen of vigour at eighty-two.

In this same context and whilst at Cushendall in August 1850, Harvey's correspondence with Mrs Alfred Gatty commenced (Fisher, 1869: 217–221). Mrs Gatty had found at Filey what she thought from Harvey's *Manual* to be fruiting *Lomentaria* [*Chrysomenia*] *orcadensis*, not previously seen in that state amongst the Orkney material. Hesitant at first because of inadequate experience with the seaweeds, she finally plucked up courage to write to Harvey on this; he immediately replied (from Cushendall, Antrim, 16 August 1850), expressing great interest and asking to see the specimen, at the same time sending Mrs Gatty a sketch from the plate proof of *Phycologia*, plate 301, which was to appear in October 1850. He asked her to send the specimen to Trinity College, by the first week in September, when he would be there, so that he could: 'examine, compare, and return your specimen before leaving home, and I should particularly wish to do so at that time, as I shall have then to send forward the MS. of the "*Phycologia Britannica*" description of *Chrysomenia Orcadensis* to the printer.' Harvey finally decided to publish in the October 1850 part as *Chrysomenia rosea* var. *orcadensis* and to give an Appendix plate of the Filey plant as '*C. rosea, vera*', the original figure and description being left entirely as established from the Orkney material. The Gatty/Harvey correspondence on British algal topics continued unabated for some months, even years, thereafter, initially to the considerable benefit of *Phycologia Britannica*.

Not long after this, on 7 March [1851], and heaving a metaphorical sigh of relief in one sense, if the underlining of the word '*last*' is anything to go by, whilst experiencing considerable tension in another, if the underlining of '*used up*' has equal weight, Harvey was writing to Berkeley from Trinity College (Berkeley Correspondence, vol. 6, GREV-HOO), as follows:

I am now drawing the *last* batch of plates for *Phycologia*—and am nearly *used up* for subjects. Will you permit me to make use of your *figure* of *Vaucheria submarina* (of which I know nothing personal), or can you give me any additional analysis.—I purpose copying *V. marina* from Lyngbye, having no better data—as my dried specimens are quite worthless.

I [purpose ?] to omit

Myrionema clavatum (no specimen)

- Polysiphonia stricta = formosa junior.
 P ——— Grevillii = violacea! as I now believe.
 Corallina elongata = (no specimen—& *bad species* ?)
 Callith. purpurascens = a *Myth*.
 ✓ Conferva arenicola, Berk. = no specimen.
 Porphyra miniata = no specimen.
 Bangia carnea (Conf. carnea, Dillw.) no spec.
 ✓ Rivularia applanata (no specimen).
 Spirulina Hutchinsiae } —no specimen.
 Sphaerozyga Broomei }

Unless you can put me in the way of any of them.

[The ticks exist in pencil on the original letter; they seem to relate to Berkeley's deciding he could supply material.]

This was followed up by another letter (filed as above) on 7 April [1851], otherwise of the same origin and recipient, responding to Berkeley's reply to the above:

I am much obliged by your attention to my requests—& sorry that the figure of *Vaucheria* will be too late. I have copied & sent off *Lyngbye's* figure for Phyc.—& the *last batch of stones* have left my hands.

Berkeley's reply to which the above was the response has not so far been traced, but is fairly clear in nature; it obviously crossed in the post with a further supplementary request from Harvey (also filed in the Berkeley Correspondence) written on 2 April 1851, and concerning the first item on the omissions listing in the 7 March letter. *Myrionema clavatum*, as implied from the supplementary letter, was finally included as plate 348 of part 58 (1 May 1851), partly on the basis of data (both descriptions and a sketch) provided by Berkeley responding to Harvey:

May I again trespass on your good nature by asking you to copy on the enclosed sheet from Carmichael's MSS., if in your possession, any additional descriptions of *Myrionema clavatum*, and to send it then to Reeve, whose press awaits it.

Berkeley obviously 'put Harvey in the way of' *Conferva arenicola*, and possibly could have of *Rivularia applanata*, as well; the first of these two, ticked (with the second) in pencil on Harvey's original letter, now in the Berkeley Correspondence, was presumably marked by Berkeley to indicate that he could spare material of both these for Harvey—*C. arenicola* appeared on 1 June 1851 as plate 354A. *Rivularia applanata*, by contrast, never did appear in the *Phycologia* and either did not reach Harvey at all, or, like the *Vaucheria marina* (see above), arrived too late to be useful. The rest of the 7 March listing of *desiderata* was presumably beyond the resources that Berkeley could command on Harvey's behalf.

A few other letters relevant to perceiving contemporary opinion of Harvey and his work do exist. Some of those are considered in detail earlier in this examination of the events before and after the publication of the *Phycologia*, where they have importance in other contexts. Those are not repeated in the part of this section which follows, but are re-cited where appropriate, with cross-referencing. Some letters are comparatively unimportant in any other context than the content of the next section and are therefore quoted there. In one or two cases, they could as well have been used here in the background to particular faults in principle or in specific plates/texts; the decisions had sometimes to be arbitrary not to use them. Some were constructively critical, others less so, and that difference has often determined the section in which they have been cited.

The Opinions

In the expression of opinions on published works, two levels are immediately discernible—those supposedly for the producers' ears alone and those made totally publicly. This section

principally concerns general views that can be distilled out of either private or public views. The most consistent constituent of all the preserved opinions contemporary or near-contemporary to the work itself seems here to have been general agreement on the magnitude and utility of the task facing the author, although a fairly substantial minority did not, with some justification, like the nuisance represented by the concept of such long-term part works at all. At least the correction of notified errors could be achieved less arduously and more quickly in these part works, although whether that in this case always inspired more cogent, less emotive reactions is open to question. Nevertheless, private criticism was commonly the more constructive than the 'puffing' inherent to many published review situations.

Considering initially those privately-expressed preserved opinions, it has to be said that Harvey was often his own sternest critic, although the criticisms he generated frequently concerned rather the end-products of plate content, organization and processing than they did the textual matter, over which he had more direct control. Much of the personal private criticism by Harvey himself, mostly aimed at Reeve and exchanged (when at all) primarily with the Hookers, has already been quoted earlier in this study. Such letters as concerned this were often of wider significance in establishing general sequence and development of background. Harvey himself was sometimes quite rightly criticized, particularly in the early stages, by both the Hookers (principally) and others (less frequently); generally speaking, this criticism related to plate-crowding and illustrative over-elaboration or repetition, but there were occasions when textual content, or the lack of it, was remarked on.

Letters already quoted that passed between Harvey and others, principally the Hookers, will not be reproduced again here. For a general sequence of such letters, see especially the outlined exchanges of 1846 between the Hookers and Harvey on pp 119–30, with others of occasional relevance appearing thence to p. 137. Not all of these letters were directly critical in style, from either side; a fair proportion discussed various ways of betterment or even, occasionally, allotted deserved praise as appropriate in one direction or the other across the Irish Sea. There was also occasional praise from intermittent private correspondents, such as Mrs Griffiths, but, in the general way of humanity, friends and colleagues in the main wrote only when they had occasion to disagree with Harvey on factual data or when they took exception to the way something was stated or illustrated. Some of such criticisms were actually very valuable, reflecting or echoing as they did something about which Harvey himself was already uneasy, for example the balance of data provided.

Constructive criticisms are usually based on analytical views and may occasionally seem harsh or unnecessarily abrasive. Although Harvey was not unduly disturbed by it, this must have been much the way of things with the letters from William Thompson and Edward Forbes that gave rise to replies, one of which is quoted in Fisher (1869: 158). Thompson, knowing Harvey well, had taken the opportunity to acquaint Harvey with what was being said about his book. Fisher (1869: 157) categorized Harvey's reply of 19 January 1847, which she reproduced in full, as 'marking the candour which was so prominent a feature in both characters.' Presumably Thompson in any case felt he had the right to criticize since he provided much information (often ecological) for the *Phycologia*. Harvey clearly was not greatly perturbed by whatever general gossip there was about the work, although he was much more open to the cogent comments by Thompson himself and, presumably, echoed by Edward Forbes. Harvey's reply to Thompson's letter is important in establishing attitudes to criticism and is not readily available to many, even as published by Fisher (1869: 157); this latter work is infrequent. The reply also shows something of the nature of the Thompson/Forbes criticisms. For all these reasons, the major part of it is reproduced here:

Heartless Thompson

'Tis dangerous to joke on paper, for a thing looks so different in writing from what it would sound if spoken—the manner being all in all. I was *half* joking in my note, and so were you, I suppose, in yours; but I confess I was only *half*, for I did feel a little nettled. . . . I should then have written with more caution. I am really obliged to you for telling me that my book has been said to have the

character you mention, for I by no means wish it to be a mere glorification of the said person, or indeed of any person else, myself not excepted. If I lean to glorify any one, it is Mrs. Griffiths, to whom I owe much of the little acquaintance I have with the *variations* to which these plants are subject, and who has often save me from making bad species, and who is always ready to supply me with fruit of plants which every one else finds barren. She is worth ten thousand other collectors; and I don't care a whit if you say (or all the world join you) that my book is merely a trumpet for her praises. For she is a *trump*.

Never mind "gilding your pills." It is wasting refined gold. I like you all the better for telling me exactly what you think, and where I am wrong, and when I am convinced of my error, I hope I shall always try and mend it. I confess that the early numbers were very deficient in information, such as you say is wished for. You and Forbes wrote to me about it, and I have since done my best to mend. I always latterly give the habitats when I know them, and what can I say more? I am forced to restrain myself within two pages. These are enough for most plants, but to-day I have had some February proofs returned to me to be cut down, being much too long. The last few numbers have been much more carefully written, and I intend to keep it up. Whether you see any improvement or not, I cannot say, but I know I take more pains to please.

Ever yours,

HARVEYA—*Cordata*.

Comparison of the content of early 1846 parts with those of later in 1846 gives some credence to what Harvey stated about care and improved content, although John Ralfs, even later in the currency of the work (he wrote in January 1852, but his comments were about a plate that appeared very late in 1850) indicated from Penzance, Cornwall, to M. J. Berkeley, in Wansford [now Cambridgeshire], about Harvey's *Phycologia* plate of *Calothrix semiplena* [pl. 309; part 52] a constructive criticism that seems to have been something Harvey himself could have resolved:

I do not believe it is the *Lyngbya semiplena* Ag. It does not agree with Kützing's *Leibleinia semiplena* nor with Aresch. *Lyngbya lutescens* & I think Harvey has been misled by a mistake of Kützing's — the latter gives No. 8 instead of 81 for the *Lyngbya lutescens* of *Algae Scand.* & as Harvey at No 8 found a morsel of his plant with the *Ceramium Rothii* (there is none in my copy) he concludes apparently that Kütz. ment [*sic*] No. 8. It is not a true species of *Lyngbya* or *Calothrix*. Harvey's specific name (*lamellosum*) will do very well if the character is not a Generic one. (Berkeley Correspondence, vol. 10, RAL-THW).

As with any worthwhile on-going part work, however, (at least up to the point where pressures derived from the need to scratch around for copy in the terminal stages begin to intervene), textual content of the *Phycologia* generally shows much greater tightness, balance, organization and market awareness as the sequence progressed. In fairness to Harvey, it should be said that this was achieved as much through continual critical self-examination as from the effects of outside criticism.

Indeed, it is certainly the case that Harvey and his various important correspondents, even the influential and almost ubiquitous Hookers on occasion, did *not always* see eye-to-eye on *Phycologia Britannica* topics. In such cases, Harvey seems normally (and quite rightly) to have stood by what he believed. A case of not seeing things in the same light occurred even as early as the appearance of the first part. Harvey (to W. J. Hooker on 5 January 1846) observed that: 'The woodcut [see Plate 9] looks very well—and is quite an improvement to the face of the book.' but Hooker's opinion was somewhat at variance: 'The Wood-cut might be better.' The woodcut concerned, be it said, persisted on the part-wrappers and volume title-pages from the beginning to the end of the work! A clear enough example of those cases in which Harvey, although listening well to constructive criticism, did not bow to the prevailing winds. It should

be added that Hooker Senior would have had ample opportunity to see the woodcut long before it reached the stage of publication. Letters from Harvey (see earlier) to Joseph Hooker, in which Harvey complains of his own making a mess of the algal group for the woodcut vignette and requests Joseph Hooker to have Fitch, the Hookers' artist/engraver, tidy up matters considerably, show very clearly that Joseph consulted his father on the subject at that time in November/December 1845.

By its nature and intent, the present section is principally concerned with the overt opinions, sometimes rather less well-informed or analytical, expressed in published reviews of particular parts or volumes of Harvey's *Phycologia Britannica*. Generally, these were not narrow or focused on particular plates or organisms, but took into account all that was available to review at the time of writing. Although much of the private (written and preserved, although presumably reflecting the ephemeral and verbal) comment *was* so focused on particular organisms or themes, forming the hobby-horses of individual critics, some *was* more generalized and thus has more direct relevance here than might otherwise be thought. That generalized comment was not always critical—considerable praise was occasionally forthcoming. Lenormand, for example, writing to Berkeley on 28 June 1851 (Berkeley Correspondence, vol. 8, JER-MON), indicated:

Je suis toujours sans nouvelles de M^r Harvey quoique Je reçoive avec la plus grande exactitude les livraisons de son magnifique *Phycologia Britannica* au fuis et à mesure qu'elle paraissent.

He said much the same in another letter to Berkeley more than a year later (25 August 1852).

Published reviews were not long in coming; Harvey was well-known, his plans for the *Phycologia* well publicized within the reticulate, almost world-wide, network of correspondents, both of the phycological and general botanical worlds of the day. Many of the journals of the time that involved themselves in reviewing published frequently and were continuously avid for copy—there were not then the diversionary alternative modes of almost instant communication that exist today. The texts of the most significant reviews of the present work, in terms of either content of the review or the extent to which the review was subsequently employed as publicity copy, are presented in Appendix III.

Even given the comparatively rapid reviewing of early parts of the *Phycologia*, Harvey was not satisfied. As already indicated above (pp. 133–35), he showed decided signs of being unhappy in what he regarded as both restricted extent of reviewing and poor speed of publication of his work, particularly as achieved outside his immediate correspondence circle. He wrote to Miles Berkeley (letter quoted above, pp. 120–21) requesting a few lines from him, through his connections with *Gardener's Chronicle*, by way of review. Berkeley was either astonishingly quick off the mark or that review was already being processed, for Harvey's letter was penned on 5 March 1846, and the *Gardener's Chronicle* review (Appendix III, 1) appeared in the issue of Saturday, 14 March 1846. Very little later, Harvey was again requesting publicity, this time of W. J. Hooker in his *London Journal of Botany* (letter quoted above, p. 121). Speed was again something of the essence, since the letter of 23 March 1846, Hooker's reply of 25 March (or 1 April, it is not absolutely clear which), Harvey's further letter referring Hooker for data to the *Prospectus* and to the *Advertisement*, and the *Review* itself (Appendix III, 2), which included the statement that four numbers of the 'beautiful work' were already before the public (and therefore must have been written in early April 1846), all followed in quick succession.

Similarly speedy were two other reviews which, along with the *Gardener's Chronicle* review (Appendix III, 1) already referred to, were used by Reeve in his advertisement published in *The Athenaeum* on 11 April 1846 (Appendix III, 8). Apart from the speed of production of these reviews, it is additionally interesting that they appeared in journals that would not immediately be identified as likely sources of such information in what even then was a somewhat esoteric field, although with much more widespread 'amateur' following, from all sorts of motives, than is ever nowadays the case. It is in some ways surprising that the *Edinburgh Witness* review (cf. Appendix III, 3) was not in any way the product of Robert

Kaye Greville, well known to Harvey, W. J. Hooker and the circle, or of any one of a number of others (such as George Dickie, George Johnston or Major Martin) with Scottish connections. Stylistically, however, it points elsewhere and in fact (see p. 142) can be established as the work of Revd David Landsborough, of Saltcoats, Ayrshire. A draft letter from Lovell Reeve to Landsborough (Lovell Reeve Letter Book (Drafts), 1847–1872, ff. 28–29), written in late July–August 1848, during negotiations on the writing of *A Popular History of British Sea-weeds* (1849 *et seq.*), makes this very clear:

I have taken the liberty of making this request to you, because the style in which the Review of the *Phycologia Britannica* was written in the Edinburgh Witness is just the style adapted to our views.

It is, incidentally, of interest that W. Fitch, the Hookers' artist who gave Harvey lessons early on, was responsible for the illustrations to this Landsborough text and that they are often based, by agreement with and involving the consultative aid of, William Harvey, on those published in or prepared for the *Phycologia Britannica*.

Also appearing early in 1846 was a review of the *Phycologia*, in French, in the *Revue Botanique* (Duchartre) (Appendix III, 4); it is not clear by whom this was authored, but it is of such a generalized form and nature that it could have been prepared by Duchartre himself, or by Delessert (who was involved with the production), rather than by one more directly concerned with the benthic marine algae. Since both René Lenormand and Camille Montagne, the latter in reviews published on pages adjacent to those of the present review and clearly identified by the initials 'C.M.', had firm connections with this short-lived journal, it would be strange that a non-phycologist should have been allocated the task ahead of them; it is, however, known (see earlier) that Lenormand was being presented with copies of the parts by Harvey himself and may not therefore have cared to review the work. This does not explain the Montagne situation. If the review had been written by either of the latter, it is strange that initials identifying the author were not appended.

The review seemingly most quoted in support of his advertisements by Lovell Reeve was that appearing in the *Annals and Magazine of Natural History* in June 1846 (Appendix III, 5). This is not long, two sides of a small page size, but was floridly, almost fulsomely, written, in the not infrequent style of reviews of the time. Clearly, the text was written during May 1846, since five available numbers are indicated. Many of the Reeve advertisements in *The Athenaeum* quote *verbatim* from the first half of the final paragraph of this review; such is the case with those of 6 March 1847 (*The Athenaeum*, 1847 (1010): 267), 24 April 1847 (1847 (1017): 428), and 18 April 1849 (1849 (1120): 387).

All these and later reviews (for which see the overall group reproduced in Appendix III) have one primary facet in common. They seem primarily concerned with publicizing the existence of an undoubtedly meritorious work which they largely eulogise rather than objectively criticize. Even W. J. Hooker who, when Harvey requested a review of the *Phycologia* (see earlier), rather drily remarked:

I will not forget a notice of your charming book as soon as I have a little leisure.
... you may safely leave the praise (or otherwise) to me

did not in the event issue anything but descriptive eulogy of the work. These review publications are thus more of the nature of, albeit extended, Book Notices on behalf of author and publisher than they are of critical reviews. The nature of the comments made in private in correspondence makes it clear that most of those who examined available plates and text in detail felt there to be occasional facets that required revision and critical comment; indeed, in a work as comprehensively pioneering and carried out largely by one man, however widely knowledgeable, as this then was, with so broad a canvas, it is difficult to envisage that (with or without refereeing submission before publication) such could have been avoided. Harvey himself seems to have regarded *Phycologia Britannica* as a work of future stimulus, not of present perfection. We have not yet reached, if indeed we ever shall reach, anything like the latter state in British marine benthic macrophycology.

The author of the work which is the concern of this present analysis should have the last word in rounding off. I quote from the Preface which Harvey wrote and dated 30 July 1851. With the minor changes of the insertion of 'pieces of information' for the present 'forms of Algae', of 'ten' for the present 'five' (years), and of 'facts' for the present 'species', the quotation will equally well serve as an *apologia* for the present study and any inaccuracies detected in it.

For these sins [of over- or under-caution in taxonomic assessment throughout] I entreat a charitable criticism on the grounds of excuse offered by a lively Quaker when reproved, by a graver brother, for his witticisms: "Friend, if thou knew how much I keep in, thou wouldst not find fault with what I let out." And if you, dear Critic, could know the number of puzzling forms of Algae which in the course of the last five years have passed through my hands, and which I have had to reduce to their specific types, you would judge leniently of my mistakes, where I may have been deceived by such forms, and wrongly proposed them as new species.

Whatever may be my errors in this respect, I have the satisfaction to know that the study of British Marine Botany has been fostered and extended by this work; and this, to an author who feels a personal interest in his subject, is the best reward for his labours.

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*John Harvey Taylor.
Christmas 1884*

PHYCOLOGIA BRITANNICA:

OR

A HISTORY OF BRITISH SEA-WEEDS,

CONTAINING

COLOURED FIGURES, GENERIC AND SPECIFIC CHARACTERS,
SYNONYMS, AND DESCRIPTIONS

OF

ALL THE SPECIES OF ALGÆ INHABITING THE SHORES OF THE

BRITISH ISLANDS.

BY

WILLIAM HENRY HARVEY, M.D., M.R.I.A.,

KEEPER OF THE HERBARIUM OF THE UNIVERSITY OF DUBLIN, AND
PROFESSOR OF BOTANY TO THE ROYAL DUBLIN SOCIETY.

NEW EDITION.

IN FOUR VOLUMES.

VOL. II.

RHODOSPERMEÆ, OR RED SEA-WEEDS.

PART I.

(*Rhodomeiaceæ*, *Laurenciaceæ*, *Corallinaceæ*, *Delesseriaceæ*, and *Rhodymeniaceæ*.)

SYNOPSIS, No. 98 to 189.

LONDON:

L. REEVE AND CO.,

5. HENRIETTA STREET, COVENT GARDEN.

1871.

Plate 10 The title-page to the 1871 'New Edition', in this case Volume II of that four-volume issue. The page is reproduced natural size.

Table I

Harvey's *Phycologia Britannica*: synoptic content and arrangement

Additional notes

For more general background, see pp. 94–95.

- Other signatures occur amongst prefatory and synoptic texts published in association with *Phycologia Britannica* at various times (see Price, 1984). Known examples are as follows:

SYNOPSIS of orders/genera:	p. i	_____	signature 'a'
SYNOPSIS of species:	p. i	_____	signature 'b'
	p. xxi	_____	signature 'c'
	p. xxix	_____	signature 'd'
	p. xxxvii	_____	signature 'e'

ALPHABETICAL INDEX, vol. I

vol. II

vol. III

p. [1]

signature 'VOL. III. 2I'

- For various reasons, no plate was provided for certain species included in the SYNOPSIS; these are:

NO.	NAME	REASON FOR OMISSION
107	<i>Polysiphonia stricta</i>	Supposed young (?) of <i>P. formosa</i> .
115	<i>Polysiphonia Grevillii</i>	A variety of <i>P. violacea</i> .
148	<i>Corallina elongata</i>	Omitted, since Harvey had seen no specimen of it and suggested (7/3/1851, to MJB) '& bad species?'. 264 <i>Callithamnion purpurascens</i> Unknown to Harvey; he calls it (correctly) a MYTH (see letter of 7 March 1851, to Berkeley, quoted in text).
328	<i>Conferva clandestina</i>	Unknown to Harvey.
344*	<i>Porphyra miniata</i>	Unknown to Harvey (no specimen).
348	<i>Bangia carnea</i>	Unknown to Harvey (no specimen).
352	<i>Rivularia applanata</i>	Unknown to Harvey (no specimen).
357	<i>Calothrix mucor</i>	Unknown to Harvey.
373	<i>Oscillatoria subsalsa</i>	Unknown to Harvey.
379	<i>Spirulina Hutchinsiae</i>	Unknown to Harvey (no specimen).
385	<i>Sphaerozyga Ralfsii</i>	No specimen.

- It does not follow that known presence of multiple versions of some plate-texts in particular parts necessarily indicates that *all* plates in that same part were produced in more than one printing version of the text, BUT IT IS STRONGLY LIKELY THAT THIS IS THE CASE. There is no part, anywhere in the long currency of the work, for which *at least one* (and mostly at least *three*) plate(s) have not been located in multiple text versions. It therefore follows that probably *ALL* the text (except the SYNOPSIS) was reprinted at one time or other, in different versions, on demand.
- Accessible copies of all plates across all 'editions' require comparison for actual differences and for variation in colouring and wear on the stones. Known varying versions of plate-text probably are usable as a good, although not infallible, guide to likely different versions or printings of the plates in the same part. For general analysis of colour and form in the plates, see Appendix IV.
- The characteristics of line-end, typeface and punctuation changes between different versions of plate texts are not give in detail here, save in the cases where the nature of the change provided an immediately simple and direct means of checking which version was to hand. It would otherwise have been too space-consuming to explain the relationships between versions. I shall be happy to provide fuller data for particular cases on request, where I have the information.
- For purposes of this Table and references throughout the text, plate numbers have been converted from the Roman used in print to Arabic.
- For reasons of ease of reference, and because in general little or no equivocation is thus involved, the nomenclature employed by Harvey for 'species' has been maintained throughout the present study.
- The note entry in the 'Textual differences' column '2(A)→2(B)' represents the difference in the form of the figure 2 from version A of the text (curved base 2) to version B (flat base 2).

PLATE XX.

PHYLLOPHORA BRODIAEI, *J. Ag.*

GEN. CHAR. *Frond* stipitate, rigid-membranaceous, proliferous, nerveless or with a vanishing nerve, cellular; cells minute, angular, gradually smaller toward the surface. *Fructification* of two kinds, on distinct plants;—1, prominent *tubercles* (*nemathecia*) seated on the frond, composed of radiating, moniliform filaments, whose lower articulations are at length dissolved into *spores* (?). 2, *tetraspores* collected into sori, either toward the apex of the frond, or on proper leaflets. PHYLLOPHORA—from φύλλον, a leaf, and φέρω, to bear: a proliferous frond.

PHYLLOPHORA *Brodiaei*; stem cylindrical, filiform, branched, the branches expanding into oblong, simple or forked, flat, membranaceous frondlets, which are proliferous from their extremity; tubercles sessile on the tips of the segments.

PHYLLOPHORA *Brodiaei*, *J. Ag. Alg. Medit.* p. 93. *Endl. 3rd Suppl.* p. 38.

COCCOTYLUS *Brodiaei*, *Kütz. Phyc. Gen.* p. 412.

CHONDRUS *Brodiaei*, *Grev. Alg. Brit.* p. 133. *Hook. Brit. Fl.* vol. ii. p. 303. *Mack. Fl. Hib.* part 3. p. 202. *Harv. Man.* p. 78.

SPHÆROCOCCLUS *Brodiaei*, *Ag. Syn.* p. 27. *Lyngb. Hyd. Dan.* p. 11. t. 3. *Ag. Sp. Alg.* vol. i. p. 239. *Ag. Syst.* p. 213. *Grev. Fl. Edin.* p. 295.

DELESSERIA *Brodiaei*, *Lam. Ess.* p. 37.

FUCUS *Brodiaei*, *Turn. Hist.* t. 72. *E. Bot.* t. 1966. *Fl. Dan.* t. 1476.

Var. *β. simplex*; stem short expanding into an oblong, simple or once forked, rose coloured frond; sorus elliptical, composed of tetraspores.

CHONDRUS *Brodiaei*, *β. simplex*, *Grev. Alg. Brit.* p. 133. *Hook. Br. Fl. l. c.* *Harv. Man. l. c.* *Wyatt, Alg. Brit.* no. 121.

FUCUS *membranifolius*, var. *roseus*, *Turn.* t. 74. f. m.

HAB. On rocks in the sea. Rare. Perennial? Winter and Spring. Eastern coast of Scotland, in several places. Lossiemouth, *Mr. Brodie*. Mouth of the Bann, Co. Derry, *Mr. D. Moore*. At Bangor, on Belfast Bay, *Mr. W. Thompson*. Var. *β*, Devonshire, *Mrs. Griffiths*. Malahide, *Mr. McCalla*.

GEOG. DISTR. Baltic Sea, *Mertens*. Denmark, *Lyngbye*. German Ocean. Atlantic coast of France, rare.

DESCR. *Root* a small disc; in *β*, a widely expanding disc. *Frond* 2–8 inches high; the stem cylindrical, variable in length, simple or branched, the branches expanding into oblong, flat, forked or simple, wedge-shaped leaves, which vary in breadth from two to five lines, and in length from one to three inches. The *segments* are somewhat truncate, often proliferous from

PLATE XX.

PHYLLOPHORA BRODIAEI, *J. Ag.*

GEN. CHAR. *Fron*d stipitate, rigid-membranaceous, proliferous, nerveless or with a vanishing nerve, cellular; cells minute, angular, gradually smaller toward the surface. *Fructification* of two kinds, on distinct plants;—1, prominent *tubercles* (*nemathecia*) seated on the frond, composed of radiating, moniliform filaments, whose lower articulations are at length dissolved into spores (?). 2, *tetraspores* collected into sori, either toward the apex of the frond, or on proper leaflets. PHYLLOPHORA—from φύλλον, a leaf, and φέρω, to bear: a proliferous frond.

PHYLLOPHORA *Brodiaei*; stem cylindrical, filiform, branched, the branches expanding into oblong, simple or forked, flat, membranaceous frondlets, which are proliferous from their extremity; tubercles sessile on the tips of the segments.

PHYLLOPHORA *Brodiaei*, *J. Ag. Alg. Medit.* p. 93. *Endl. 3rd Suppl.* p. 38.

COCCOTYLUS *Brodiaei*, *Kütz. Phyc. Gen.* p. 412.

CHONDRUS *Brodiaei*, *Grev. Alg. Brit.* p. 133. *Hook. Brit. Fl.* vol. ii. p. 303. *Mack. Fl. Hib.* part 3. p. 202. *Harv. Man.* p. 78.

SPHÆROCOCCUS *Brodiaei*, *Ag. Syn.* p. 27. *Lyngb. Hyd. Dan.* p. 11. t. 3. *Ag. Sp. Alg.* vol. i. p. 239. *Ag. Syst.* p. 213. *Grev. Fl. Edin.* p. 295.

DELESSERIA *Brodiaei*, *Lamx. Ess.* p. 37.

FUCUS *Brodiaei*, *Turn. Hist.* t. 72. *E. Bot.* t. 1966. *Fl. Dan.* t. 1476.

Var. *β. simplex*; stem short expanding into an oblong, simple or once forked, rose-coloured frond; sorus elliptical, composed of tetraspores.

CHONDRUS *Brodiaei*, *β. simplex*, *Grev. Alg. Brit.* p. 133. *Hook. Br. Fl. l. c.* *Harv. Man. l. c.* *Wyatt, Alg. Brit.* no. 121.

FUCUS *membranifolius*, var. *roseus*, *Turn. t.* 74. f. m.

HAB. On rocks in the sea. Rare. Perennial? Winter and Spring. Eastern coast of Scotland, in several places. Lossiemouth, *Mr. Brodie*. Mouth of the Bann, Co. Derry, *Mr. D. Moore*. At Bangor, on Belfast Bay, *Mr. W. Thompson*. Var. *β*, Devonshire, *Mrs. Griffiths*. Malahide, *Mr. McCalla*.

GEOGR. DISTR. Baltic Sea, *Mertens*. Denmark, *Lyngbye*. German Ocean. Atlantic coast of France, rare.

DESC. *Root* a small disc; in *β*, a widely expanding disc. *Fron*d 2–8 inches high; the stem cylindrical, variable at length, simple or branched, the branches expanding into oblong, flat, forked or simple, wedge-shaped leaves, which vary in breadth from two to five lines, and in length from one to

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
1.	1	1	1	B	Position shifted right	<i>Dictyota atomaria</i>
	2	1	2	B2	No signature	<i>Delesseria hypoglossum</i>
	3	1	4	No signature	No signature	<i>Bryopsis plumosa</i>
	4	1	1	No signature	No signature	<i>Ectocarpus brachiatus</i>
	5	1	3	C	Position shifted right	<i>Callithamnion gracillimum</i>
	6	1	4	No signature	No signature	<i>Cladophora lanosa</i>
2.	7	1	2	C	No signature	<i>Polysiphonia furcellata</i>
	8	1	1	C2	No signature	<i>Punctaria latifolia</i>
	9	1	2	No signature	No signature	<i>Nitophyllum versicolor</i>
	10	1	2	No signature	No signature	<i>Polysiphonia richardsonii</i>
	11	1	1	D	Position shifted right (v. slight)	<i>Asperococcus turneri</i>
	12	1	4	D2	Position shifted right; D↔2 spacing wider	<i>Cladophora rectangularis</i>
3.	13	1	3	No signature	No signature	<i>Kallymenia reniformis</i>
	14	1	1	No signature	No signature	<i>Carpomitra cabreræ</i>
	15	1	2	E on <i>polycarpa</i> ; none on <i>multipartita</i>	<i>multipartita</i> only – no signature	<i>Gracilaria multipartita</i>
	16	1	3	E2	Position shifted right; E↔2 spaced wider	<i>Griffithsia Devonensis</i>
	17	1	1	No signature	No signature	<i>Chordaria divaricata</i>
	18	1	4	No signature	Not seen	<i>Cladophora gracilis</i>
4.	19	1	1	F	Position shifted right	<i>Haliseris polypodioides</i>
	20	1	3	F2	Position shifted right; F↔2 spaced out	<i>Phyllophora brodiaei</i>
	21	1	3	No signature	No signature	<i>Seirospora Griffithsiana</i>
	22	1	1	No signature	No signature	<i>Ectocarpus hincksiae</i>
	23	1	2	G	Not seen	<i>Nitophyllum Bonnemaisoni[i]</i>
	24	1	4	G2	No signature	<i>Cladophora refracta</i>
5.	25	1	1	No signature	No signature	<i>Striaria attenuata</i>
	26	1	2	No signature	No signature	<i>Delesseria ruscifolia</i>
	27	1	3	H	Position shifted right; slightly raised	<i>Wrangelia multifida</i>
	28 [A&B]	1	1	H2	Position shifted right	A. <i>Elachistea attenuata</i>
						B. <i>Elachistea velutina</i>
	29	1	3	No signature	No signature	<i>Microcladia glandulosa</i>
6.	30	1	4	No signature	No signature	<i>Cladophora Brownii</i>
	31	1	1	I	Position shifted right	<i>Mesogloia vermicularis</i>
	32	1	2	I2	Position shifted right	<i>Rhodomenia bifida</i>
	33	1	1	No signature	No signature	<i>Cladostephus verticillatus</i>
	34	1	2	No signature	No signature	<i>Odonthalia dentata</i>
	35 [A&B]	1	4	K	Position shifted right; raised	{A. <i>Codium adhaerens</i> {B. <i>Codium amphibium</i>
	36	1	3	K2	Position shifted right; K↔2 spaced wider	<i>Nemalion multifidum</i>

Number in Synopsis	Textual differences between A↔B/C
37 (<i>Taonia</i>)	Division lines drawn of different lengths relative to letterpress text (in B, cf A).
167	Version A, line 3—'coccidia'; version B—'coccoidea'. Line-end shifts, Comments, version B.
284	Line-end shifts, Comments, version B (especially on reverse).
94	Typeface changes, punctuation changes and line-end shifts (A→B); last 's' missing from 'possessing', line 1, rear A.
269	Line-end shifts, Comments (reverse B).
305	Line-end shifts, Comments (B).
126	Greek accent changes (B); Greek script larger (B).
43	Punctuation changes, typeface changes and line-end shifts (B).
174	See pl. 11. Paper differences, versions B↔C; Greek script larger (B/C).
111	Paper and typeface clarity differences, versions B↔C; Greek script larger (B/C).
47	Version C reprints transpose reverse sides pls 9 and 11 texts; Greek script larger (B).
292	Line 2 Comments (reverse) shows 'English' corrected to 'English' (B); paper differences, B↔C; Greek script larger (B/C).
211	Question-mark form differs, A↔B; paper differences, B↔C; Greek script larger (B/C).
22	Typeface changes, punctuation changes, line-end shifts (B); Greek script larger (B); 'DESC.' (A)→'DESCR.' (B).
185	Originally as <i>G. polycarpa</i> ; see the text of the present paper (Appendix IV).
243	Line-end shifts, lines 6/7 of General Character (version B).
52	Line-end shift, 'a', line 3 from bottom to line 2 from bottom (version B); typeface changes (B).
300	Not established, but probably usual style differences (especially Greek script larger) in B.
33	Line-end shifts, reverse: <i>Fucus</i> , line 3 (A)→line 4 (B/C); <i>Ecklonia</i> , line 14 (A)→line 15 (B/C); Greek script larger (B).
201	Line-end shifts and failures of line alignment (version B cf. A); Greek script larger (B/C).
248	Line-end shifts and punctuation differences (B); paper differences only (B↔C); 'Autumn', line 2 Comments, decapped A→B; Greek script larger (B).
84	Bar missing from 'H' of Harv., entry title, versions B/C; Greek script larger (B).
171	Not established, but probably usual style differences (especially Greek script larger) in B.
303	Paper differences only, versions B↔C; Greek script larger (B/C).
42	DESC. (A)→DESCR. (B); end-line rise giving alignment variation, legend, lines 1/2 (A); typeface and punctuation changes (B).
168	Line-end shifts, comments and synonymy (B); last line 'transverse'→T.
247	Line alignment shifts, synonymy and elsewhere (B).
64 (as <i>E. pulvinata</i>)	} Line-end shifts (B); typeface changes (B); punctuation changes (B); Greek script larger (B); line 2, HAB. 'Sep.' (A)→'Sept.' (B) [28A].
65	
225	Punctuation changes (B); line 5 from bottom, obverse, '(fig. 7)' (A)→'fig. (7)' (B); Greek script larger (B).
289	Typeface changes (B); larger Greek script (B); 'Br. Pl. 2. p.355' (A)→'Br. Fl.p.2.355' (B) [a correction in error]; 'Coast' (end Habitat)(A)→'coast' (lower case initial) (B).
53	Greek script larger (B); line-end and typeface changes (B); line 9, reverse, Comments, 'Coast' (A)→'coast' (B).
177	Greek accent changes (B); Greek script larger (B).
70	Typeface and punctuation changes (B); Greek script larger (B); 'Shores' (Hab. 2) (A)→'shores' (B).
98	Description, line 9—'born' (A)→'borne' (B); Greek script larger (B).
281 }	} Plate number as title rendered 'XXXV. (A).' (version A)→'XXXV. (A.)' (version B); Greek script larger (B).
282 }	
218	Punctuation changes (B); Greek script larger (B).

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7.	37	1	1	No signature	No signature	<i>Sphacelaria scoparia</i>
	38	1	3	No signature	Not seen	<i>Naccaria Wiggii</i>
	39	1	4	L	Position shifted right	<i>Ulva linza</i>
	40	1	2	L2	Position shifted right	<i>Dasya ocellata</i>
	41	1	1	No signature	No signature	<i>A. Myrionema leclancherii</i>
	[A&B] 42	1	2	No signature	No signature	<i>B. Myrionema punctiforme</i> <i>Chylocladia reflexa</i>
8.	43	1	4	K	Not seen	<i>Enteromorpha erecta</i>
	44	1	2	K2	Not seen	<i>Plocamium coccineum</i>
	45	1	1	No signature	No signature	<i>Laminaria fascia</i>
	46	1	3	No signature	No signature	<i>Spyridia filamentosa</i>
	47	1	1	L	Position shifted right	<i>Fucus serratus</i>
	48	1	2	{ As <i>Bostrychia</i> , no signature; as <i>Helicothamnion</i> , L2	<i>Helicothamnion</i> only- position shifted right; raised; '2' reduced to same size as 'L'	<i>Bostrychia scorpioides</i>
9.	49	1	1	No signature	No signature	<i>Desmarestia aculeata</i>
	50	1	2	No signature	No signature	<i>Rhomela lycopodioides</i>
	51	1	2	O	Position shifted right	<i>Bonnemaïsonia asparagoides</i>
	52	1	1	O2	No signature	<i>Fucus mackaii</i>
	53	1	3	No signature	No signature	<i>Gelidium corneum</i>
	54 [A; B; C]	1	4	No signature	No signature	{ <i>Conferva arenosa</i> (C) <i>Conferva implexa</i> (B) <i>Conferva tortuosa</i> (A)
10.	55	1	2	P	No signature	<i>Laurencia pinnatifida</i>
	56	1	1	P2	No signature	<i>Sporochnus pedunculatus</i>
	57	1	3	No signature	No signature	<i>Gloiosiphonia capillaris</i>
	58	1	4	No signature	No signature	{ <i>Calothrix fasciculatus</i> (A) <i>Calothrix scopulorum</i> (B)
	[A&B] 59	1	3	Q	Position shifted right; lower by at least 1 line	<i>Dumontia filiformis</i>
	60	1	1	Q2	Position shifted right; raised by one line	<i>Cystoseira granulata</i>
11.	61	1	2	No signature	No signature	<i>Sphaerococcus coronopifolius</i>
	62	1	4	No signature	No signature	<i>Lyngbya majuscula</i>
	63	1	3	R	Position shifted right	<i>Chondrus crispus</i>
	64	1	1	R2	Position shifted right	<i>Arthrocladia villosa</i>
	65	1	2	No signature	No signature	<i>Gracilaria confervoides</i>
	66	1	1	No signature	No signature	<i>Halidrys siliquosa</i>
12.	67	1	3	S	No signature	<i>Griffithsia equisetifolia</i>
	68	1	4	S2	Position shifted right	<i>Rivularia nitida</i>
	69	1	3	No signature	No signature	<i>Ginnania furcellata</i>
	70	1	1	No signature	No signature	<i>Stilophora rhizoides</i>
	71	1	3	T	Position shifted right	<i>Peyssonelia Dubyi</i>

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Synopsis

Textual differences between A↔B/C

- 74 Typeface and punctuation changes (B); Greek script larger (B).
 216 Not established (probably usual style differences in B).
 342 Line-end shifts in Comments (B).
 131 Line-end shifts (B); Greek accent changes and Greek script larger (B).
 67 } Larger Greek script and Greek accent changes (B); typeface and punctuation changes (B); line 3, M. punctiforme—
 68 } 'Br. Fl.' (A)→'Brit. Fl.' (B).
 144 Greek accent changes and Greek script larger (B).
- 334 Not established, but probably usual style differences (especially Greek script larger) in B.
 175 Not established, but probably usual style differences (especially Greek script larger) in B.
 29 Punctuation differences (B); line-end shifts down in main comments and Description (B); 'Mc'Calla' (A)→
 'McCalla' (B).
 239 Line-end down shifts, synonymy and comments (B); Greek script larger (B).
 12 Typeface differences (B); Greek script larger (B); line-end shifts and punctuation differences (B);
 'Endl. 3' (A)→'Endl. 3rd.' (B).
 101 Afterwards as *Helicothamnion*; see text of present paper (Appendix IV). Greek script larger (*Helicothamnion*,
 A→B).
- 18 Line-end shifts, up and down, comments (B); punctuation differences (B).
 99 Line-end down shifts (B); Greek script larger (B).
 134 Line-end downshifts (B); 'Mc'Calla' (A)→'McCalla' (B).
 14 'sea' (A)→'Sea' (B), geogr. distribution; 'Mc'Calla' (A)→'McCalla' (B); Greek script larger (B).
 191 Alignment shifts, var. *crinale* synonymy (B).
 317 }
 322 } Line-end downshifts, comments of 54A/54B (version B).
 321 }
- 135 Line-end shifts, Hab. and reverse comments (B); faulty 'into', last line, side 1, version A.
 21 Line-end shifts, Hab. and comments (B); typeface changes, synonymy (B); Greek script larger (B);
 'Mc'Calla' (A)→'McCalla' (B).
 217 Punctuation changes (B); Greek script larger (B).
 360 }
 359 } Line-end downshifts, description end, 58A (version B); Greek script larger (B).
 208 Line-end shift, lines 2/3 from bottom, reverse comments (B).
- 5 Typeface and punctuation changes (B); Greek script larger (B).
- 184 Main head and plate number alignment changes (B); 'Kilbried' (Version B) mis-spelt in Habitat; Greek script
 larger (B).
 365 Division line variations, typeface changes and punctuation changes (B).
 197 Punctuation changes (B); Greek script larger (B).
 20 Greek script larger (B); typeface changes (B); 'Mc'Calla' (A)→'McCalla' (B); 'sea' (A)→'Sea' (B) in geogr.
 distribution.
 187 Punctuation changes (B).
 3 Line-end shifts, e.g. 'lanceolate' from obverse bottom to next up, (B); Greek script larger (B);
 'DIST.' (A)→'DISTR.' (B).
- 240 Punctuation and typeface changes (B).
 353 Line-end downshifts (description, B); upshifts (reverse comments, B).
 210 Line-end shifts, synonymy, (B); punctuation changes (B); Greek script larger (B).
 39 Greek script larger (B); punctuation and typeface changes (B).
 203 Vertical alignment differences (B); 'Mc'Calla' (A)→'McCalla' (B).

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	72	1	1	2T [T2 in many 4 vol. and original part versions]	Position shifted right (T2)	<i>Asperococcus compressus</i>
13.	73	1	2	No signature	No signature	<i>Melobesia agariciformis</i>
	74	1	2	No signature	No signature	<i>Melobesia fasciculata</i>
	75	1	1	U	Position shifted right	<i>Cutleria multifida</i>
	76	1	4	U2	Position shifted right	<i>Calothrix pannosa</i>
	77	1	3	No signature	No signature	<i>Callithamnion tripinnatum</i>
	78	1	1	No signature	No signature	<i>Himanthalia lorea</i>
14.	79	1	1	X	Position shifted right	<i>Alaria esculenta</i>
	80	1	3	2X	No signature	<i>Ptilota plumosa</i>
	81	1	3	No signature	No signature	<i>Callithamnion floccosum</i>
	82	1	1	No signature	No signature	<i>Mesogloia virescens</i>
	83	1	2	Y	Position shifted right	<i>Delesseria angustissima</i>
	84	1	4	[rear side] Y2 [not on all copies]	No signature	<i>Cladophora Macallana</i>
15.	85	1	2	No signature	No signature	<i>Rytiphlaea pinastroides</i>
	86	1	4	No signature	No signature	<i>Cladophora Rudolphiana</i>
	87	1	1	Z	Position shifted right	<i>Sphacelaria plumosa</i>
	88	1	3	2Y	No signature	<i>Catenella Opuntia</i>
	89	1	1	No signature	No signature	<i>Pycnophycus tuberculatus</i>
	90	1	3	No signature	No signature	<i>Ceramium nodosum</i>
16.	91	1	1	2A	Position shifted right; 2↔A spaced out	<i>Padina pavonia</i>
	92	1	4	2 A 2	Position shifted right	<i>Porphyra lacinata</i>
	93	1	4	No signature	No signature	<i>Codium tomentosum</i>
	94	1	3	No signature	No signature	<i>Furcellaria fastigiata</i>
	95	1	3	2B	Position shifted right; 2↔B spaced out	<i>Polyides rotundus</i>
	96	1	4	2 B 2	Position shifted right; A closed up slightly cf. B	<i>Bangia fuscopurpurea</i>
17.	97	1	3	No signature	No signature	<i>Iridaea edulis</i>
	98	1	1	No signature	No signature	<i>Ralfsia deusta</i>
	99	1	4	2B	Position shifted right; 2↔B respaced; '2' form changed	{ <i>A. Conferva Melagonium</i> { <i>B. Conferva aerea</i>
	[A; B]					
	100	1	3	2 B 2	Position shifted right; characters spaced out	<i>Grateloupia filicina</i>
	101	1	1	No signature	No signature	<i>Myriotrichia clavaeformis</i>
	102	1	2	No signature	No signature	{ <i>A. Polysiphonia obscura</i> { <i>B. Polysiphonia pulvinata</i>
	[A; B]					

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Textual differences between A↔B/C

- 46 Greek script larger (B); typeface and punctuation changes (B); 'disc'→'disk' (Descr., B); 'Colour' (Descr., A)→'colour' (B).
- 155 Line-end shift, last line, side one (B); 'Mc'Calla' (A)→'McCalla' (B).
- 154 Line 3 from base, reverse side comments, 'n' omitted from 'different' (B); line-end shifts and vertical alignment errors (B).
- 32 'Morèe' (synonymy; A)→'Morée' (B); 'Mc'Calla' (A)→'McCalla' (B).
- 361 Line upshifts, lines 4/5, comments (B); also lines 7/8, reverse comments; Greek script larger (B).
- 268 Typeface and punctuation changes (B); 'Vol.' (line 3, synonymy) rendered *ital.* (A)→Rom. (B).
- 16 Typeface changes and line-end shifts (e.g., end of Gen. char.) (version B); Greek script larger (B).
- 23 Typeface and punctuation changes (B).
- 223 Turner quotation, middle reverse, begins lower case (A)→CAP. (B); Greek script larger (B).
- 251 {Line 2, reverse—omission of inverted comma after 'History' (version A) corrected in B; line 22, reverse comments, 'synonymes' drops the 'e' (version B); punctuation changes (B); Greek script larger (B).
- 55 MOSOGLOIA and incorrect heading position (in A) amended in B; Greek script larger (B).
- 166 {'c' dropped from the incorrect (A) 'synonyme' in B; text, line 2, the correct 'rib' (A) becomes in error 'rid' (B); left line ends, vertical alignment errors introduced in B (e.g., line 15, obverse).
- 293 Figure legend alignment with main text re-set (reverse; B); Greek script larger (B); 'Mc'Calla' (A)→'McCalla' (B).
- 102 Vertical alignment changes, synonymy heads (B); Greek script larger (B).
- 302 Greek 'φοπέο' corrected to 'φοπέω' (B); Greek script larger (B).
- 75 Line-end shifts (B); Greek script larger (B).
- 214 Extra line, bottom of face page (B); line-end shifts, Fig. legend (B); full par CAPS of 'PLATE' converted to the usual 'PLATE' (B).
- 9 Greek script larger (B); punctuation and typeface differences (B); type alignment errors (B).
- 233 'Mc'Calla' (A) changed to 'M'Calla' (B).
- 34 Line-end shifts and punctuation changes (B); 'Morèe' (synonymy; A)→'Morée' (B).
- 343 Line-end shifts, comments (B); Greek script larger (B).
- 283 Greek script larger (B); Greek accents changed (B); line-end shifts and punctuation changes (B); line 3—'opake' (A)→'opaque' (B).
- 207 Punctuation changes (B); vertical alignment changes, line-end, Gen. char. (B); line-end shifts, synonymy and elsewhere (B).
- 206 Line 6 from base—'M'Bain' (A)→'M'Bain' (B); Greek script larger (B).
- 345 —
- 213 Punctuation differences (A→B); '(Aresch)' (A)→'(Aresch.)' (B).
- 58 (As *R. verrucosa*); typeface changes (B); punctuation changes (B).
- 323 } Line-end shifts, Gen. char., Pt. A (B); Line-end shifts, DESCR., Pt. B (B).
- 324 }
- 190 Line-end shifts, Comments (Reverse) (B); 'b ranching' (line 2; version A) corrected in version B.
- 96 Greek script larger (B); Greek accent changes (B); line-end shifts and punctuation changes (B).
- 120 } Spacing differences (B); line-end shifts (B); heading for *P. pulvinata* correctly given 'CII B' (A), but incorrectly
- 108 } 'CIII B' (B); Greek script larger (B).

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18.	103	1	1	2C	Position shifted right	<i>Dictyota dichotoma</i>
	104	1	3	2 C 2	Position shifted right	<i>Gigartina acicularis</i>
	105	1	4	No signature	No signature	{ <i>A. Oscillatoria littoralis</i>
	[A; B; C]					{ <i>B. Oscillatoria spiralis</i>
	106	1	3	No signature	No signature	{ <i>C. Spirulina tenuissima</i>
	107	1	1	2D	No signature	<i>Crouania attenuata</i>
19.	108	1	3	2 D 2	Position shifted right; spacing different	<i>Chorda filum</i>
	109	1	1	No signature	Position shifted right; characters spaced out	<i>Gymnogongrus Griffithsiae</i>
	110	1	3	No signature	No signature	<i>Sargassum bacciferum</i>
	111	1	1	E2	No signature	<i>Dudresnaia divaricata</i>
	112	1	3	2 E 2	Reversed to 2E and position shifted right	<i>Chordaria flagelliformis</i>
	113	1	4	No signature	Position shifted right	<i>Halymenia ligulata</i>
20.	[A; B; C]				No signature	{ <i>A. Sphaerozyga Carmichaelii</i>
	114	1	2	No signature	No signature	{ <i>B. Sphaerozyga Thwaitesii</i>
	115	1	1	F2	No signature	{ <i>C. Spermisira litorea</i>
	116	1	2	2 F 2	No signature	<i>Chrysomenia clavellosa</i>
	117	1	3	No signature	Position shifted right; characters respaced out	<i>Desmarestia ligulata</i>
	118	1	2	No signature	Position shifted right; characters respaced out	<i>Hypnea purpurescens</i>
21.	119	1	4	2G	No signature	<i>Cruoria pellita</i>
	120	1	3	2 G 2	No signature	<i>Chylocladia ovalis</i>
	[A; B]				Position shifted right	<i>Bryopsis hypnoides</i>
	121	2	2	No signature	Position shifted right	{ <i>A. Callithamnion floridulum</i>
	122	2	1	No signature	Position shifted right	{ <i>B. Callithamnion Rothii</i>
	123	2	3	VOL. II. B	No signature	<i>Rhodomenia lacinata</i>
22.	124	2	4	B2	No signature	<i>Cystoseira foeniculacea</i>
	125	2	3	No signature	No signature	<i>Kallymenia Dubyi</i>
	126	2	1	No signature	'VOL. II.' as before (left text); 'B' position shifted right	<i>Cladophora Hutchinsiae</i>
	127	2	2	VOL. II. C	Position shifted right	<i>Callithamnion spongiosum</i>
	128	2	1	2C	No signature	<i>Ectocarpus sphaerophorus</i>
	129	2	3	No signature	Reversed to C2 and position shifted right	<i>Punctaria plantaginea</i>
23.	130	2	4	No signature	No signature	<i>Callithamnion Brodiaei</i>
	131	2	3	VOL. II. D	No signature	<i>Cladophora diffusa</i>
	132	2	1	D2	'VOL. II.' as before (left text); 'D' position shifted right	<i>Phyllophora rubens</i>
	133	2	2	2 D 2	Position shifted right	<i>Ectocarpus mertensii</i>
	134	2	3	No signature	No signature	
	135	2	4	No signature	No signature	

‘(Commencing Vol. 2.)’
on part cover

Number in Synopsis	Textual differences between A↔B/C
38	Type-face changes and line-end shifts (B); Greek script larger (B); Greek accent changes (B).
194	Line-end shifts and punctuation changes (B); Greek script larger (B); line 16, 'ii' (A)→'2' (B).
372	Spacing variations, suffix letters of plate heads (version B); line-end shifts and spacing shifts, various parts (B).
374	
378	
222	
30	Line-end shift, penultimate line of comments and in synonymy (version B); punctuation changes (B); Greek variety script larger (B).
204	Line-end shifts (B); punctuation changes (B); Greek script larger (B).
2	Line-end shift, line 5, reverse (B); italic typeface larger (B).
221	Line-end shift, line 4 from base, comments reverse (B).
51	Typeface changes (B); division line variations (B).
209	Punctuation changes and line-end shifts (B); Greek script larger (B).
381	Spacing variation, suffix letters in main plate heads (version B); line-end changes in comments (A) and Figure legend layout (B) (version B); Greek script larger (B).
382	
386	
140	Line-end shifts and punctuation changes (B); synonymy, last entry—'clavellus' (A)→'clavellusa' (B); Greek script larger (B).
17	Typeface changes (B); line-end shifts (near end comments; B); division line differences (B).
189	Line-end shifts (B).
215	'Linn. vol. 17' (A)→'Linn. vol. xvii' (B); punctuation differences (B); line-end shifts (B).
142	Line-end shifts (B); Mc'Bain (A)→M'Bain (B); Greek script larger (B).
285	Few line-end and punctuation changes, descn and comments (B); Greek script larger (B).
275	Line-end shifts, Descr. and elsewhere (B); punctuation changes (B); Greek script changed (B); reverse side, Hab., line 1, 'on' (version A)→'On' (B).
274	
178	Greek accent changes and larger script size (B); punctuation changes and line-end shifts (B); 'Fl. Dan. t. 769' syn. ref. shows raised '9' (B); 'Foeroe' (A)→'Faeroe' (B).
7	Line-end shift, version B (e.g., 'Spain' uptake in Geogr. Distribution (B)); Greek script larger (B).
212	Greek script larger and accents added (B); line-end shifts (B).
294	Greek script larger and accents added (B); line-end shifts, species diagnosis (B).
272	Greek script larger and accent changes (B).
93	Greek script larger and accent additions (B); line-end shifts (B).
181	Greek script larger, with accent changes (B); 'Mc'Bain' (A)→'M'Bain' (B); 'Foeroe' (A)→'Faeroe' (B).
44	Line-end shifts and punctuation differences (B); McBain (A)→M'Bain (B).
256	Greek spelling, script size and accent changes (B); punctuation changes and line-end shifts (B).
295	Fig. legends to Figs 1–3, vertical alignment changes (B); Greek script larger (B).
199	Greek script larger (B).
95	Greek script larger (B); typeface changes (B).

No. (Part)	PL No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
23.	133	2	1	No signature	No signature	<i>Cystoseira fibrosa</i>
	134	2	2	No signature	No signature	<i>Rhodymenia Palmetta</i>
	135	2	4	VOL. II. E	'VOL. II.' as before (left text); 'E' position shifted right; both parts raised one line higher	<i>Cladophora arcta</i>
	136	2	3	E2	Position shifted right	<i>Callithamnion tetragonum</i>
	137	2	3	No signature	No signature	<i>Callithamnion brachiatum</i>
	138	2	1	No signature	No signature	<i>Cladostephus spongiosus</i>
	139	2	3	VOL. II. F	Raised overall; 'VOL. II.' as before (left text); 'F' position shifted right	<i>Ceramium ciliatum</i>
24.	140	2	3	F2	No signature	<i>Ceramium acanthonotum</i>
	141	2	3	No signature	No signature	<i>Ceramium echionotum</i>
	142	2	1	No signature	No signature	<i>Sphacelaria filicina</i>
	143	2	1	(left) VOL. II. G (right)	G (right) and shifted right	<i>Sphacelaria sertularia</i>
	144	2	3	G2	Position shifted right (slight); spaced out (slight)	<i>Ceramium flabelligerum</i>
	145	2	2	No signature	No signature	<i>Chylocladia kaliformis</i>
	146	2	2	No signature	No signature	<i>Polysiphonia elongella</i>
25.	147	2	2	VOL. II. G	'VOL. II.' as before (left text); 'G' huge shift right, from mid- page (A)→near line end (B)	<i>Polysiphonia parasitica</i>
	148	2	2	G2	'G' position under 'I', rather than 'e' of 'simple'	<i>Laurencia obtusa</i>
	149	2	1	No signature	No signature	<i>Sphacelaria fusca</i>
	150	2	4	No signature	No signature	{ A. <i>Conferva Linum</i> B. <i>Conferva sutoria</i>
	[A; B]					
	151	2	2	VOL. II. H	Raised overall; 'VOL. II.' as before (left text); 'H' position shifted right	<i>Delesseria sanguinea</i>
	152	2	2	H2	Raised overall; position shifted right; spaced out	<i>Laurencia dasyphylla</i>
26.	153	2	1	No signature	No signature	<i>Ectocarpus pusillus</i>
	154	2	4	No signature	No signature	<i>Enteromorpha intestinalis</i>
	155	2	2	VOL. II. I	'VOL. II.' as before (left text); 'I' position shifted right	<i>Polysiphonia variegata</i>
	156	2	1	I2	Position shifted right	<i>Myriotrichia filiformis</i>

Number in Synopsis	Textual differences between A↔B/C
8	Line-end shifts, Gen. Char. (B); Greek script larger (B).
179	Line-end shifts (B); Greek script larger, with accent changes (B).
307	Line-end changes, lines 12/13, reverse comments (B); Greek script larger (B).
257	Punctuation changes (B); Greek script larger (B).
258	Line-end shifts and punctuation changes (B); Greek script larger (B); M ^c Bain (A)→M ^c Bain (B); line 1 from base, face page, 'toward' (A)→'towards' (B).
71	Greek script larger (B); Greek accents added (B).
238	Greek script larger and accents added (B); 'Danm.' (A)→'Damn.' (B).
237	Greek script larger and accents added (B); punctuation changes (B).
236	Greek script larger and accents added (B).
72	Line-end shifts (B); Greek script larger (B).
73	Corrections (e.g., 'elliptical') and line-end shifts (B); Greek script larger (B); M ^c Calla (A)→M ^c Calla (B).
235	Line-end shifts, especially in Gen. Char. (B); Greek script larger and accents added (B).
143	Greek script larger and accents added (B); line-end shifts and punctuation changes (B).
113	BMNH text sheet annotated [MS G. Tandy] '. . . another plate of <i>P. elongella</i> in subsequent edition.'; Greek script larger and accents added (B); punctuation changes (B).
128	Greek script larger and accents added (B); line-end shifts (B).
137	Mid-reverse side, comments, 'obelisc' (A)→'obelisk' (B).
77	Line-end shifts (B); Greek script larger and accents added (B).
319 } 320 }	Punctuation, line-end shifts and abbreviation differences (A→B).
163	Punctuation changes and spacing differences (B); vertical alignment differences, synonymy heads (B).
138	Punctuation changes and line-end shifts (B); Geogr. Distr., line 2, 'Sea' (A)→'Seas' (B).
87	Greek script larger and accents added (B); typefaces changes (B).
331	Greek script larger and accents added (B); punctuation changes (B); 'disc' (A)→'disk' (B).
119	Greek script larger and accents added (B); punctuation changes (B).
97	Greek script larger and accents added (B); line-end shift, para. 1, reverse (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
27.	157	2	2	No signature	No signature	<i>Stenogramme interrupta</i>
	158	2	1	No signature	No signature	<i>Fucus nodosus</i>
	159	2	3	VOL. II. K	'VOL. II.' as before (left text); 'K', position shifted right	<i>Callithamnion Borreri</i>
	160	2	4	K2	Slight positional shift right; figure '2' form change	<i>Schizothrix Cresswellii</i>
	161	2	3	No signature	No signature	<i>Nemalion ? purpureum</i>
	162	2	1	No signature	No signature	<i>Ectocarpus siliculosus</i>
28.	163	2	3	VOL. II. L	'VOL. II.' as before (left text); 'L' position shifted right	<i>Phyllophora membranifolia</i>
	164	2	3	L2	Position shifted right; spaced out	<i>Callithamnion cruciatum</i>
	165	2	3	No signature	No signature	<i>Callithamnion barbatum</i>
	166	2	2	No signature	No signature	<i>Lithocystis allmanni</i>
	167	2	2	VOL. II. M	'VOL. II.' as before (left text); 'M' position shifted right	<i>Polysiphonia urceolata</i>
	168	2	2	M2	Position shifted right; spaced out	<i>Polysiphonia formosa</i>
29.	169	2	2	No signature	No signature	<i>Nitophyllum Hilliae</i>
	170	2	2	No signature	No signature	<i>Rytiphlaea complanata</i>
	171	2	4	VOL. II. N	'VOL. II.' as before (left text); 'N' position shifted right	<i>Ulva latissima</i>
	172	2	2	N2	Slight shift right (one letter space only)	<i>Polysiphonia atro-rubescens</i>
	173	2	4	No signature	No signature	{ <i>A. Sphaerozyga Broomei</i> <i>B. Sphaerozyga Berkeleyana</i> <i>C. Spermosira Harveyana</i>
	[A; B; C] 174	2	4	No signature	No signature	
30.	175	2	2	VOL. II. O	'VOL. II.' as before (left text); 'O' position shifted right	<i>Rhodomenia jubata</i>
	176	2	1	2O	Reversed to 'O2' and position shifted right, with widened spacing	<i>Leathesia Berkeleyi</i>
	177	2	2	No signature	No signature	<i>Gracilaria erecta</i>
	178	2	1	No signature	No signature	<i>Sphacelaria cirrhosa</i>
	179	2	3	VOL. II. P	'VOL. II.' as before (left text); 'P' position shifted right	<i>Callithamnion Turneri</i>
	180	2	4	P2	Position shifted right	<i>Cladophora rupestris</i>

Number in Synopsis	Textual differences between A↔B/C
176	Greek script larger and accents added (B); punctuation changes (B).
13	Greek script larger and accents added (B); 'Sea-weed' (A)→'seaweed' (B).
266	Line-end shifts (B); punctuation changes (B); '74' in E.Bot. 1741 ref., synonymy, dropped badly (B); Greek script larger (B; but not proven as same size as usual B Greek).
355	Line-end shifts (B); Greek script slightly larger and accent differences (B).
219	Line-end shifts and punctuation changes (B); Greek script larger (B).
80	Greek script slightly larger than usual A form, but not up to size of usual B form.
200	Greek script larger and accents added (B); line-end shifts and punctuation changes (B); 'Danm.' (A)→'Damn.' (B).
250	Greek script larger and accents added (B); punctuation changes (B); 'Danm.' (A)→'Damn.' (B).
253	Greek script larger and accents added (B).
162	Head change: Corallineae? (A)→Corallineae (B); Greek script larger and accents added (B); line-end shifts (B).
106	Greek script larger and accents added (B); 'Danm.' (A)→'Damn.' (B); 'characterised' (A)→'characterized' (B).
107	Greek script larger and accents added (B); punctuation changes (B); 'Danm.' (A)→'Damn.' (B).
170	Greek script larger and accents added (B); punctuation changes (B); 'Hutchin's' (A)→'Hutchins' (B); 'Danm.' (A)→'Damn.' (B).
103	Greek script larger and accents added (B); punctuation changes (B).
340	Line-end changes, comments (B); 'Danm.' (A)→'Damn.' (B).
125	Greek script larger and accents added (B); 'Danm.' (A)→'Damn.' (B).
383 } 384 } 387 }	Greek script larger and accents added (B); authority citation, 'MSS' (A)→'mss' (B).
291	Greek script larger and accents added (B); punctuation changes (B).
182	Greek script larger (B); 'Danm.' (A)→'Damn.' (B); '0' in 404, Kütz. Phyc. Gen. ref. is <i>W.F.</i> →should be fig., not Cap. 'O' as B.
57	Ital. face larger and more spaced (B); 'Danm.' (A)→'Damn.' (B).
188	Line-end shifts (B); 'Danm.' (A)→'Damn.' (B).
76	Greek script larger (B); punctuation changes (B); 'Danm.' (A)→'Damn.' (B).
252	Line-end shifts (B); Greek script larger (B); 'Danm.' (A)→'Damn.' (B); 'ramuli' (line 3, synonymy, A)→'ramulii' (B); 'Hist. fucorum' without inverted commas (A), or with (B).
297	Punctuation changes and line-end shifts (B), in comments; Greek script larger (B); usual change in form of M ^c Calla (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
31.	181	2	3	No signature	No signature	<i>Ceramium rubrum</i>
	182	2	1	No signature	No signature	<i>Ectocarpus tomentosus</i>
	183	2	1	VOL. II. Q	'VOL. II.' as before (left text); 'Q' position shifted right (and longer tail)	<i>Ectocarpus amphibius</i>
	184	2	3	Q2	Position shifted right; spaced out	<i>Griffithsia setacea</i>
	185	2	3	No signature	No signature	<i>Griffithsia secundiflora</i>
	186 [A; B]	2	4	No signature	No signature	{ <i>A. Lyngbya carmichaelii</i> <i>B. Lyngbya speciosa</i>
32.	187	2	3	VOL. II. R	'VOL. II.' as before (left text); 'R' position shifted right	<i>Chondrus Norvegicus</i>
	188	2	3	R2	Position shifted right; spaced out	<i>Callithamnion tetricum</i>
	189	2	1	No signature	No signature	<i>Sphacelaria radicans</i>
	190	2	4	No signature	No signature	<i>Cladophora laetevirens</i>
	191	2	3	VOL. II. S	'VOL. II.' as before (left text); 'S' position shifted right	<i>Ptilota sericea</i>
	192	2	1	S2	Position shifted right	<i>Laminaria phyllitis</i>
33.	193	2	3	No signature	No signature	<i>Ceramium diaphanum</i>
	194	2	1	No signature	No signature	<i>Asperococcus echinatus</i>
	195	2	2	VOL. II. T	'VOL. II.' as before (left text); 'T' position shifted right	<i>Polysiphonia brodiaei</i>
	196	2	4	T2	Position shifted right; spaced out	<i>Cladophora glaucescens</i>
	197	2	1	No signature	No signature	<i>Ectocarpus litoralis</i>
	198	2	2	No signature	No signature	<i>Laurencia tenuissima</i>
34.	199	2	3	VOL. II. U	'VOL. II.' as before (left text); 'U' position shifted right	<i>Gigartina mamillosa</i>
	200	2	1	U2	Position shifted right; 'U' spaced from '2'	<i>Ectocarpus granulosus</i>
	201	2	2	No signature	No signature	<i>Corallina squamata</i>
	202	2	2	No signature	No signature	<i>Nitophyllum punctatum</i>
	203	2	2	VOL. II. X	'VOL. II.' as before (left text); 'X' position shifted right	<i>Nitophyllum punctatum</i>
	204	2	1	X2	Position shifted right; 'X broken lower left' (A)→'X perfect' (B); signature size change (B)	<i>Fucus vesiculosus</i>

Number in
Synopsis

Textual differences between A↔B/C

- 226 Greek script larger (B); 'Danm.' (A)→'Damn.' (B); last line, obverse, 'hog's' (A)→'hogs' (B).
85 Greek script larger (B); 'Danm. no.' (A)→'Damn. n.' (B); line-end change, lines 11/12, reverse.
81 Greek script larger and accents added (B).
- 246 Punctuation changes (B); 'Danm.' (A)→'Damn.' (B).
- 245 Greek var. letters larger (B); 'Crouan, MS' (A)→'Crouan, ms' (B).
367 'p' of 'purple', Gen. Char., line 3, part A, misaligned at margin (B); 'MS' (A)→'ms' (B); 'Danm. no.' (A)→
368 'Damn. n.' (B).
- 198 Line-end shifts (B); Greek script larger (B); 'Danm.' (A)→'Damn.' (B); '2' (A)→'2' (B); '(Stack.)' (A)→
'(Stack.)' (B).
- 259 Greek script larger (B); Wyatt synonymy ref. 'no. 141' (A)→'n. 141' (B); 'Danm.' (A)→'Damn.' (B); 'Mc'Calla' (A)→
'M'Calla' (B).
- 78 Greek script larger (B); 'Danm.' (A)→'Damn.' (B).
298 '-ra' of *Cladophora*, line 3, Gen. Char., spaced away from rest of word-stem (B); Wyatt 'Danm.' (A)→'Damn.' (B);
Greek script larger (B).
224 Greek script larger (B); 'Danm.' (A)→'Damn.' (B).
- 28 'Mc'Bain' (A)→'McBain' (B); punctuation changes and division-line variations (B).
- 230 Punctuation changes (B); line-end shifts (B); Greek script larger (B); 'Danm.' (A)→'Damn.' (B); 'no.' (A)→'n.' (B);
'Morèe' (Synonymy; A)→'Morée' (B).
48 Greek script larger (B); 'Danm.' (A)→'Damn.' (B)
118 Punctuation differences (B); Greek script larger (B); 'Danm. no.' (A)→'Damn. n.' (B); '2' (A)→'2' (B).
- 308 Line-end shifts, comments (B); Wyatt's 'Danmon.' (A)→'Damnon.' (B), reverse comments; Greek script larger (B).
- 90 Text uneven, lead edge, Descpn. (B)) Greek script larger (B); Danm. (A)→Damn. (B).
139 Punctuation differences (B); 'Danm. no.' (A)→'Damn. n.' (B); '2' (A)→'2' (B).
- 196 Line-end shifts and punctuation differences (B); Greek script larger (B); 'substance' (A)→'Substance' (B).
- 92 Line-end shifts, legend (B); Greek script larger (B); punctuation changes (B); typeface changes (B).
- 149 Punctuation differences (B); line-end shifts (B); 'hog's' (A)→'hogs' (B).
169 Punctuation differences (B); '2' (A)→'2' (B); 'Fl. Eden.' (B)↔'Fl. Edin.' (A); line-end shifts (B); Greek script
larger (B).
169 bis Line-end shifts and punctuation differences (B); printing position errors corrected (A→B).
- 10 Greek script larger (B); punctuation and line-end changes (B); 'Danm. no.' (A)→'Damn. n.' (B); spelling differences
and typeface changes (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
35.	205	2	2	No signature	No signature	<i>Gracilaria compressa</i>
	206	2	3	No signature	No signature	<i>Ceramium gracillimum</i>
	207	2	4	VOL. II. Y	'VOL. II.' as before; Y shifted slightly right	<i>Cladophora uncialis</i>
	208	2	2	Y2	Position shifted right; 1/3rd increase in Y ↔ 2 space	<i>Polysiphonia fibrata</i>
	209	2	2	No signature	No signature	<i>Polysiphonia violacea</i>
	210	2	2	No signature	No signature	<i>Chylocladia parvula</i>
36.	211	2	4	VOL. II. Z	'VOL. II.' as before; 'Z' shifted right	<i>Porphyra vulgaris</i>
	212	2	3	Z2	Position shifted right; spaced out	<i>Callithamnion pedicellatum</i>
	213	2	4	No signature	No signature	<i>Hormospora ramosa</i>
	214	2	3	No signature	No signature	<i>Griffithsia corallina</i>
	215	2	3	VOL. II. 2A	'VOL. II.' as before (left text); '2A' position shifted right	<i>Ceramium botryocarpum</i>
	216	2	4	2 A 2	Shifted right; position of characters closed slightly	<i>Cladophora falcata</i>
37.	217	2	2	No signature	No signature	<i>Rhodomenia palmata</i>
	218	2	2	No signature	No signature	<i>Rhodomenia palmata</i>
	219	2	3	VOL. II. 2B	'VOL. II.' down slightly; '2B' shifted right	<i>Ceramium deslongchampii</i>
	220	2	2	2 B 2	Position shifted right	<i>Rytiphlaea fruticulosa</i>
	221	2	2	No signature	No signature	<i>Rytiphlaea thuyoides</i>
	222	2	2	No signature	No signature	<i>Corallina officinalis</i>
38.	223	2	1	VOL. II. 2C	'VOL. II.' lowered slightly; '2C' shifted right	<i>Laminaria digitata</i>
	224	2	2	2 C 2	Position shifted right	<i>Dasya arbuscula</i>
	225	2	2	No signature	No signature	<i>Dasya venusta</i>
	226	2	4	No signature	No signature	<i>Ochlochaete Hystrix</i>
	227	2	2	VOL. II. 2D	'VOL. II.' as before; '2D' shifted right	<i>Polysiphonia subulifera</i>
	228	2	2	2 D 2	Position shifted right	<i>Polysiphonia griffithsiana</i>
39	229	2	1	No signature	No signature	<i>Fucus canaliculatus</i>
	230	2	3	No signature	No signature	<i>Callithamnion roseum</i>
	231	2	3	VOL. II. 2E	'VOL. II.' as before; '2E' shifted right	<i>Callithamnion polyspermum</i>

Number in Synopsis	Textual differences between A↔B/C
186	'2' (A)→'2' (B); 'Danm.' (A)→'Damn.' (B); 'Algier.' (A)→'Alg.' (B); &c. (A)→etc. (B); punctuation differences (B).
231	Punctuation differences and line-end shifts (B); Greek script larger (B); opaque (A)→opake (B); muscle (A)→mussel (B).
306	Punctuation and typeface changes (B); lowercase to CAP changes (B); Greek script larger (B); 'Danm. no.' (A)→Damn. n. (B).
109	'2' (A)→'2' (B); continent (A)→Continent (B); Danm. (A)→Damn. (B); muscle (A)→mussel (B); Greek script larger (B).
115	Greek script larger (B); punctuation differences and line-end shifts (B); decomposed (A)→decompound (B); 2 (A)→2 (B); Danm. (A)→Damn. (B).
145	Punctuation differences (B); Greek script larger (B); Danm.→Damn. (B).
344	Typeface, spelling and punctuation differences (B); line-end changes (B); Greek script larger (B); Danm. (A)→Damn. (B).
273	Line-end shifts and punctuation changes (B); Greek script larger (B); &c. (A)→etc. (B); <i>Supp.</i> (A)→ <i>Suppl.</i> (B); 2 (A)→2 (B).
388	Line-end and punctuation changes (B); Greek script larger (B); extra abbreviations (B).
244	Punctuation and typeface changes (B); 2 (A)→2 (B); <i>Supp.</i> (A)→ <i>Suppl.</i> (B).
227	Respacings (B); Greek script larger (B); Descpn, line 6—not (A)→nor (B); Descpn, penultimate line, reverse, not (A)→no (B).
309	Line-end shifts, punctuation changes and spacing variations (B); Greek script larger (B).
183	Line-end shifts, punctuation changes and script-size changes (A→B); Greek script larger (B); 2 (A)→2 (B); Danm. (A)→Damn. (B); <i>soboliferus</i> ref. (reverse) to Harvey 'Tab. . . . CCXXVIII. fig. 2' (A)→'Tab. . . . CCXXVIII. fig. 2' (B).
183 bis	Line-end shifts and punctuation changes (B).
229	Line-end shifts and punctuation changes (B); Greek script larger (B).
105	Last line face taken over to reverse (B); line-end shifts and punctuation changes (B); Greek script larger (B).
104	Line-end shifts (B); Greek script larger (B); Descpn, hog's (A)→hogs' (B); line 3, reverse, frond (A)→front (B).
147	Line-end shifts and punctuation changes (B); legend, 2 (A)→2 (B); Descpn, hog's (A)→hogs' (B).
24	Line-end shifts, punctuation changes and typeface changes (B).
132	Line-end shifts and punctuation changes (B); Greek script larger (B); 2 (A)→2 (B); hog's (A)→hogs' (B).
133	Line-end shifts, punctuation changes and typeface changes (B); Greek script larger (B); 2 (A)→2 (B); hog's (A)→hogs' (B).
329	Typeface changes and line-end changes (B); spacing variations (B); Greek script larger (B).
124	Typeface changes, punctuation changes and line-end shifts (B); Greek script larger (B); line 3, base, face, specimen (A)→specimens (B).
112	Line-end shifts and typeface changes (B); Greek script larger (B); 2 (A)→2 (B).
15	Line-end shift (last line of comments; B); Greek script larger (B); Velly (synonymy; A)→Velly (B); Arabic figs (A)→Roman figs (B).
261	Line-end shifts, punctuation changes and typeface changes (B); Greek script larger (B).
263	Greek script larger (B); Grevillii (reverse; A)→Crevillii (B); 2 (A)→2 (B), in signature.

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
	232	2	3	2 E 2	Position shifted right	<i>Gigartina pistillata</i>
	233	2	1	No signature	No signature	<i>Ectocarpus landsburgii</i>
	234	2	2	No signature	No signature	<i>Jania corniculata</i>
40.	235	2	2	VOL. II. 2F	'VOL. II.' as before; '2F' shifted right	<i>Nitophyllum Gmelinii</i>
	236	2	4	2 F 2	shifted right; characters closed up	<i>Cladophora repens</i>
	237	2	1	No signature	No signature	<i>Stilophora lyngbyaei</i>
	238	2	4	No signature	No signature	<i>Rhizoclonium riparium</i>
	239	2	4	VOL. II. 2G	No signature	<i>Rivularia atra</i>
	240	2	1	2 G 2	No signature	<i>Elachistea fucicola</i>
41.	241	3	1	VOL. III. B	No signature	<i>Laminaria bulbosa</i>
	242	3	3	B2	No signature	<i>Callithamnion Plumula</i>
	243	3	4	VOL. III. C	'VOL. III.' slightly raised; 'C' raised & shifted very slightly	<i>Ulva lactuca</i>
	244	3	3	C2	Shifted right	<i>Dudresnaia coccinea</i>
	245	3	4	No signature	No signature	<i>Enteromorpha ramulosa</i>
	246	3	4	No signature	No signature	<i>Bangia (?) elegans</i>
42.	247	3	2	VOL. III. D	'VOL. III.' as before; 'D' shifted right	<i>Delesseria alata</i>
	248	3	1	D2	Position shifted right; closed slightly	<i>Punctaria tenuissima</i>
	249	3	4	No signature	No signature	<i>Microcoleus anguiformis</i>
	250	3	2	No signature	No signature	<i>Hildenbrandia rubra</i>
	251	3	4	VOL. III. E	No signature	{ <i>A. Oscillatoria nigroviridis</i> <i>B. Oscillatoria subuliformis</i>
	[A; B; C]					
	252	3	2	E2	No signature	<i>C. Oscillatoria insignis</i> <i>Jania rubens</i>
43.	253	3	2	No signature	No signature	<i>Dasya coccinea</i>
	254	3	4	No signature	No signature	<i>Calothrix confervicola</i>
	255	3	3	VOL. III. F	In same positions (all)	<i>Ceramium fastigiatum</i>
	256	3	4	F2	Position shifted right	<i>Monormia intricata</i>
	257	3	1	No signature	No signature	<i>Ectocarpus fenestratus</i>
	258	3	1	No signature	No signature	<i>Ectocarpus longifructus</i>
44.	259	3	2	VOL. III. G	In same positions (all)	<i>Delesseria sinuosa</i>
	260	3	1	G2	No signature	<i>Elachistea flaccida</i>
	261	3	1	No signature	No signature	<i>Elachistea stellulata</i>
	262	3	3	No signature	No signature	<i>Callithamnion byssoideum</i>
	263	3	4	VOL. III. H	No signature	<i>Enteromorpha Hopkirkii</i>
	264	3	2	H2	No signature	<i>Rhodomela subfusca</i>

Number in
Synopsis

Textual differences between A↔B/C

- 193 Line-end shifts, punctuation changes (B); Greek script larger (B); 2 (A)→2 (B); 1800 (A; records)→1809 (B; records); Linn. (A)→Lynn. (B); Stackhouse (A)→Stockhouse (B).
- 89 Line-end shifts (B); transpositions (B); Greek script larger (B); CAPS (A)→lower-case (B).
- 151 Line-end shifts and punctuation changes (B).
- 172 Line-end shifts and punctuation changes (B); Greek script larger (B); 2 (A)→2 (B); Lamouroux ref. 'p. 36' (A)→'p. 63' (B).
- 290 Line-end shifts and typeface changes (B); Greek script larger (B); 'Alg.' omitted from 'J. Ag. Alg. Medit.' (B); Line 3, Comments, 'a' omitted (B).
- 40 line-end shifts and punctuation changes (B); typeface changes (B); Greek script larger (B).
- 314 Line-end shifts (B); Greek script larger (B); *Dillw. Conf.* (A)→*Dillw. Conf.* (B).
- 351 —
- 59 Greek script larger (B); Danm. (A)→Damn. (B).
- 25 Danm. (A)→Damn. (B).
- 249 Punctuation changes (B); ! ends comments text (A)→. ends comments text (B); Greek script larger (B).
- 341 Division line changes (A→B); line 2, synonymy, 'part.' (A)→'part' (B).
- 220 Line-end shifts and punctuation changes (B); 2 (A)→2 (B); Fig. legend 2 (error; A)→3 (correct; B).
- 336 Greek script larger (B); punctuation changes (B); HAB. misaligned vertically (B).
- 349 Heads DISTR. and DESCR. correct in A, transposed in B; line 3 from base, face side, difference (A)→differences (B); punctuation changes (B).
- 165 2 (A)→2 (B); Lightf. syn. 'p. 951' (A)→'957' (B); line-end shifts, typeface and punctuation changes (B).
- 45 Punctuation and typeface changes (B); J. Ag. (A)→J. Alg. (B).
- 371 Greek script larger and *with* accents (B); punctuation changes (B); inclosed (Descpn; A)→enclosed (B).
- 161 Kützing Phyc. Gen. ref. 'p. 384' (A)→'p. 304' (B); punctuation changes (B); Hildenbrandia (A, on reverse)→Hildenbrandtia (B).
- 375 } —
- 376 }
- 377 }
- 150 Wavy division line angled up to right (A)→not so (in B); italic larger and more spaced (B).
- 130 Punctuation changes (B); typefaces changes (B), CAP→lower-case (B); Greek script larger (B).
- 356 Line-end shifts (B); Greek script larger, *with* accents (B); hyphens inserted (B).
- 234 Wyatt Danm. (A)→Damn. (B); Lower-case to CAP changes (B); line-end shifts (B); Greek script larger (B).
- 380 Line-end shifts and punctuation changes (B); Greek script larger (B), *with* accents added (B); of (comments; A)→to (comments; B); DESCR. in error for DISTR. (B).
- 82 Greek script larger, *with* accents (B); punctuation changes (B); line level shifts (B).
- 91 Greek script larger, *with* accents (B); line length changes (division lines) (B).
- 164 Line-end shifts and punctuation changes (B); 2 (A)→2 (B).
- 60 Greek script larger, *with* accents (B); Danm. (A)→Damn. (B).
- 62 Greek script larger, *with* accents (B); 'Gen.' and 'et' reversed (synonymy; A); punctuation changes (B).
- 262 Line-end shifts, punctuation and typeface changes (B); Greek script larger (B); 'la' omitted (B) from the correct 'articulations' in legend (A); 'C. byssoideum' (reverse comments; A)→'E. byssoideum' (in error; B); Harvey Man. ed.1 (A)→Harvey Man. ed. (B).
- 337 —
- 100 Line-end shifts and spacing changes (B); Greek script larger (B); 2 (A)→2 (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
45.	265	3	1	No signature	No signature	<i>Cystoseira ericoides</i>
	266	3	3	No signature	No signature	<i>Gigartina Teedii</i>
	267	3	2	VOL. III. H	No signature	<i>Nitophyllum laceratum</i>
	268	3	4	H2	No signature	<i>Conferva bangioides</i>
	269	3	3	No signature	No signature	<i>Callithamnion thuyodeum</i>
	270	3	1	No signature	No signature	<i>Litosiphon pusillus</i>
46.	271	3	1	VOL. III. K	'VOL. III.' as before; 'K' shifted right	<i>Fucus ceranoides</i>
	272	3	3	K2 ([central])	Shifted markedly right	<i>Callithamnion corymbosum</i>
	273	3	1	No signature	No signature	<i>Ectocarpus fasciculatus</i>
	274	3	3	No signature	No signature	<i>Callithamnion arbuscula</i>
	275	3	4	VOL. III. L	'VOL. III' as before; 'L' shifted right	<i>Cladophora albida</i>
	276	3	3	L2	Slight shift right (1½ ms) of A over B (B is left of A)	<i>Ceramium decurrens</i>
47	277	3	2	No signature	No signature	<i>Polysiphonia nigrescens</i>
	278	3	2	No signature	No signature	<i>Polysiphonia simulans</i>
	279	3	3	VOL. III. M	'VOL. III.', one 'm' right (A); 'M' firm shift right (B)	<i>Callithamnion Hookeri</i>
	280	3	1	M2	Position shifted right	<i>Myrionema strangulans</i>
	281	3	3	No signature	No signature	<i>Griffithsia barbata</i>
	282	3	4	No signature	No signature	<i>Enteromorpha Ralfsii</i>
48.	283	3	2	No signature	No signature	<i>Chylocladia articulata</i>
	284	3	2	No signature	No signature	<i>Polysiphonia byssoides</i>
	285	3	1	VOL. III. N	No signature	<i>Chorda lomentaria</i>
	286	3	2	N2	No signature	<i>Laurencia caespitosa</i>
	287	3	3	No signature	No signature	<i>Griffithsia simplicifilum</i>
	288	3	3	No signature	No signature	<i>Gymnogongrus plicatus</i>
49	289	3	1	VOL. III. O	'VOL. III.' as before; 'O' shifted right; both lowered one mm.	<i>Laminaria saccharina</i>
	290	3	4	O2	Position shifted right	<i>Codium Bursa</i>
	291	3	2	No signature	No signature	<i>Melobesia calcarea</i>
	292	3	2	No signature	No signature	<i>Polysiphonia elongata</i> (Yr1)
	293	3	2	VOL. III. P	'VOL. III.' as before; 'P' shifted right	<i>Polysiphonia elongata</i> (Yr2)
	294	3	4	P2	Position shifted right	<i>Cladophora fracta</i>

Number in Synopsis	Textual differences between A↔B/C
4	Line-end shifts, punctuation and typeface changes (B); Greek script larger, with accents added (B).
195	Greek script larger (B); 'doubly' (mid-Descpn; A)→'double' (in error; B).
173	Line-end shifts (B); No. (Wyatt; A)→no. (B); Greek script larger (B).
326	—
270	Punctuation changes (B); Greek script larger (B); Danm. (A)→Damn. (B); Mc.Calla (A)→M ^c Calla (B).
49	Punctuation changes (B); Greek script larger, with accents added (B); 'v' omitted from Harv. (heading; A); Danm. (A)→Damn. (B); 'these' (Descpn; A)→'the' (B).
11	Greek script larger (B); Danm. (A)→Damn. (B).
271	Line-end shifts (B); Head and pl. no. reversed (A); Greek script larger (B); 2 (A)→2 (B); Danm. (A)→Damn. (B); 'Cal.' (A)→'C' (in comments; B).
83	Greek script larger, with accents added (B); line-end shifts (B); Danm. (A)→Damn. (B); Lam. (A)→Laminaria (B), reverse text.
255	Typeface (CAP/lower-case) changes (B); punctuation changes and line-end shifts (B); Greek script larger (B); 2 (A)→2(B); 'Cal.' (A; comments)→'C' (B).
304	—
228	Greek script larger (B); 2 (A)→2 (B).
122	Typeface and punctuation changes (B); Greek script larger (B); Danm. no. (A)→Damn. n. (B); Dillw. no. (A)→Dillw. n. (B).
121	Punctuation changes (B); Greek script larger, with accents added (B).
260	Punctuation changes (B); Greek script larger, with accents added (B); Dan. No. (A)→Damn. n. (B).
66	Line-end shifts and division line changes (B); Greek script larger, with accents added (B).
242	Line-end shifts (Descpn; B).
339	Division line changes (B); Greek script larger, with accents added (B).
146	Line-end shifts and punctuation changes (B); Greek accents added (B); 2 (A)→2 (B); Danm. no. (A)→Damn. n. (B).
129	Typeface and punctuation changes (B); Greek accents added (B); Danm. no. (A)→Damn. n. (B); etc. (Comments; A)→&c. (B).
31	Greek var. letters larger in synonymy (B); Danm. (A)→Damn. (B); portion (legend; A)→portions (B).
136	Punctuation changes (B); Danm. (A)→Damn. (B).
241	Typeface and punctuation changes (B); 2 (A)→2 (B).
205	Typeface changes and line-end shifts (B); Greek script larger, with accents added (B); Danm. (A)→Damn. (B).
27	Punctuation changes (B); terminal line raised (B); Danm. (A)→Damn. (B); 'Angl.' (Hudson; A)→'Ang.' (B).
280	Greek script larger, with accents added (B); punctuation changes (B).
153	Punctuation changes and line-end shifts (B); terminal line absent (B).
114	Line-end shifts (B); Greek script larger, with accents added (B); Danm. (A)→Damn. (B); 2 (A)→2 (B); 'jonits' (A; line 1)→'joints' (B; line 1); Alg. Medit. ref., p. 136 (A)→137 (B); 'chalarophlaea' (A)→'chalarophloea' (B).
114	Typeface and punctuation changes (B).
313	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); Danm. no. (A)→Damn. n. (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
50.	295	3	1	No signature	No signature	<i>Litosiphon laminariae</i>
	296	3	3	No signature	No signature	<i>Callithamnion Pluma</i>
	297	3	3	VOL. III. Q	'VOL. III.' as before; 'Q' shifted right	<i>Callithamnion sparsum</i>
	298	3	4	Q2	Position shifted right	<i>Cladophora flavescens</i>
	299	3	2	No signature	No signature	<i>Polysiphonia fastigiata</i>
	300	3	4	No signature	No signature	<i>Lyngbya ? flacca</i>
51.	301	3	2	VOL. III. R	'VOL. III.' as before; 'R' shifted right	<i>Chrysomenia rosea</i> var. <i>orcadensis</i>
	302	3	2	R2	Shifted right	<i>Polysiphonia fibrillosa</i>
	303	3	2	No signature	No signature	<i>Polysiphonia affinis</i>
	304	3	4	No signature	No signature	<i>Enteromorpha cornucopiae</i>
	305	3	4	VOL. III. S	'VOL. III.' as before, but spaced; 'S' shifted right	<i>Calothrix caespitula</i>
	306	3	4	S2	V. slight shift left cf. A; '2' moved left more than 'S'	<i>Calothrix hydroides</i>
52.	307	3	2	No signature	No signature	<i>Rhodymenia cristata</i>
	308	3	3	No signature	No signature	<i>Callithamnion fasciculatum</i>
	309	3	4	VOL. III. T	'VOL. III.' slight shift right; 'T' shifted right more	<i>Calothrix semiplena</i>
	310	3	3	T2	Shifted right	<i>Phyllophora palmettoides</i>
	311	3	4	No signature	No signature	<i>Lyngbya ferruginea</i>
	312	3	1	No signature	No signature	<i>Desmerestia viridis</i>
53.	313	3	3	VOL. III. U	'VOL. III.' very slight shift left; 'U' shift right	<i>Callithamnion virgatum</i>
	314	3	3	U2	Shifted right	<i>Callithamnion Daviesii</i>
	315	3	4	No signature	No signature	<i>Rivularia plicata</i>
	316	3	4	No signature	No signature	<i>Schizosiphon warreniae</i>
	317	3	4	VOL. III. X	'VOL. III.' same posn., 'X' shifted right Caps slightly larger;	<i>Bangia ? ceramicola</i>
	318	3	1	X2	Position shifted right	<i>Mesogloia griffithsiana</i>

Number in Synopsis	Textual differences between A↔B/C
50	Division line changes (B); Greek script larger, with accents added (B).
254	Line-end changes (B); Greek script larger, with accents added (B).
277	Line-end changes (B)) punctuation and typeface changes (B); Greek script larger, with accents added (B).
312	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); 'pars' (synonymy; A)→'part' (B).
127	Greek script larger, with accents added (B); typeface changes (B); Danm. (A)→Damn. (B).
369	Division line limit changes (B); Italic script larger, more spaced out (B).
141	Line-end and punctuation changes (B); Greek script larger, with accents added (B).
117	Typeface changes (B); Greek script larger, with accents added (B); Danm. no. (A)→Damn. n. (B).
123	Line-end shifts and punctuation changes (B); Greek script larger (B); &c. (A)→etc. (B).
330	Punctuation changes (B); Greek script larger, with accents added (B); &c. (Habitat; A)→etc. (B).
364	Division line changes (B); Greek script larger, with accents added (B).
363	Division line changes (B); Greek script larger, with accents added (B).
180	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); 2 (A)→2 (B); MacBain (A)→M ^c Bain (B).
265	Punctuation changes and line-end shifts (B); Greek script larger, with accents added (B).
362	Punctuation changes (B); Greek script larger, with accents added (B); No. (synonymy; A)→n. (B); MS (A)→ms (B).
202	Typeface changes (CAP to lower-case) (B); punctuation changes (B); Greek accents added (B); Danm. no. (A)→Damn. n. (B).
366	Line-end shifts and punctuation changes (B); Division line level changes (B); MSS and MS (synonymy; A)→mss and ms (B).
19	Line-end shifts and punctuation changes (B); Danm. No. (A)→Damn. n. (B).
279	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); tetraspores (A)→tetraaspores (B); Cal. (legends; A)→C. (B); Danm. no. (A)→Damn. n. (B).
278	Line-end shifts, punctuation changes and typeface changes (B); Greek script larger, with accents added (B); Callithamnion (legend; A)→C. (B); Cal. (A)→C. (B); Spec. Alg. (A)→Sp. Alg. (B).
350	Division line level, spacing and punctuation changes (B).
354	Division line level changes (B); Greek script larger, with accents added (B); 'Casp.' (Authority, heading; A)→'Cusp.' (B).
347	Punctuation changes and line-end shifts (B); form of '?' with basal up-curve (B); <i>Bangia</i> (comments; A)→B. (B).
54	Division line level changes (B); Greek script larger, with accents added (B); MS (A)→ms (B); Danm. no. (A)→Damn. n. (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
54.	319	3	2	No signature	No signature	<i>Polysiphonia carmichaeliana</i>
	320	3	2	No signature	No signature	<i>Polysiphonia spinulosa</i>
	321	3	4	VOL. III. Y	'VOL. III.' shifted v. slightly left; 'Y' shifted right	<i>Vaucheria velutina</i>
	322	3	4	Y2	Position shifted right	<i>Bangia ciliaris</i>
	323	3	1	No signature	No signature	<i>Elachistea scutulata</i>
	324	3	1	No signature	No signature	<i>Leathesia tuberiformis</i>
55.	325	3	3	VOL. III. Z	No signature	<i>Callithamnion mesocarpum</i>
	326	3	1	Z2	No signature	<i>Dictyosiphon foeniculaceus</i>
	327	3	4	No signature	No signature	<i>Conferva collabens</i>
	328	3	4	No signature	No signature	<i>Cladophora Youngana</i>
	329	3	1	VOL. III. 2A	'2A' shifted right; 'VOL. III.' very slightly narrowed	<i>Ectocarpus distortus</i>
	330	3	1	2 A 2	Position shifted right	<i>Ectocarpus crinitus</i>
56.	331	3	3	No signature	No signature	<i>Callithamnion affine</i>
	332	3	1	No signature	No signature	<i>Elachistea curta</i>
	333	3	4	VOL. III. 2B	'VOL. III.' as before; '2B' shifted right	<i>Conferva litorea</i>
	334	3	3	2 B 2	Shifted right	<i>Ceramium strictum</i>
	335	3	4	No signature	No signature	<i>Enteromorpha compressa</i>
	336	3	4	No signature	No signature	<i>Lyngbya (Hormotrichum) Cutleriae</i>
57.	337	3	3	VOL. III. 2C	'VOL. III.' as before; '2C' shifted right	<i>Gelidium cartilagineum</i>
	338	3	1	No signature	No signature	<i>Laminaria digitata</i> var. <i>stenophylla</i>
	339	3	1	No signature	No signature	<i>Laminaria longicruris</i>
	340	3	4	No signature	No signature	<i>Enteromorpha clathrata</i>
	341	3	1	VOL. III. 2D	'VOL. III.' opened slightly; '2D' shifted right, narrowed	<i>Zonaria parvula</i>
	342	3	4	No signature	No signature	<i>Calothrix luteola</i>

Number in Synopsis	Textual differences between A↔B/C
116	Line-end shifts (B); Greek script larger, with accents added (B); 2 (A)→2 (B); MS (A)→ms (B).
110	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); 2 (A)→2 (B).
288	Division line level changes (B); italic script larger, more spaced out (B).
346	Line-end shifts (B); MSS (synonymy; A)→mss (B); <i>Bangia</i> (legend and comments; A)→ <i>B.</i> (B).
63	Punctuation changes (B); Greek script larger, with accents added (B); Danm. no. (A)→Damn. n. (B); &c. (legend; A)→etc. (B).
56	Line-end shifts and punctuation changes (B); <i>Alg.</i> (synonymy; A)→ <i>Ag.</i> (B); Danm. no. (A)→Damn. n. (B); <i>Muck.</i> (A)→ <i>Mack.</i> (B).
276	Line-end shifts (B); Greek script larger, with accents added (B).
41	Greek script larger, with accents added (B); Danm. (A)→Damn. (B).
325	Punctuation changes (B); Greek script larger in vars (B); 'and' and 'all' (correctly placed in legend; A)→ transposed in B.
327	Punctuation changes and division line shifts (B); italic larger and spaced out (B).
88	Line-end shifts and division line level changes (B); Greek script larger, with accents added (B); MSS (synonymy; A)→mss (B).
86	Line-end shifts and division line level changes (B); Greek script larger, with accents added (B); MSS (synonymy; A)→mss (B).
267	Punctuation changes and line-end shifts (B); Greek script larger, with accents added (B).
61	Greek script larger, with accents added (B); italic larger and spaced out (B); ' <i>Brit.</i> ' (synonymy; A)→' <i>Br.</i> ' (B).
318	Danm. No. (A)→Damn. n. (B); line-end shifts (B); 'curled' (Descpn; A)→'curved' (B).
232	Line-end shifts and punctuation changes (B); Greek script larger, with accents added (B); &c. (A)→etc. (B).
332	Danm. No. (A)→Damn. n. (B); punctuation changes (B); Greek script larger, with accents added (B); &c. (A)→etc. (B).
370	Division line level changes (B); italic script larger and more spaced out (B); DESCR. (A)→DESC. (B).
192	Line-end shifts (B); type-face changes (B).
24*	[See also 223.] Punctuation and typeface changes (B); division line level changes (B).
26	Line-end shifts (B); italic script larger and more spaced out (B); spacing changes in the arrangement of initials 'W.H.H.' (B).
335	Punctuation changes (B); Greek script larger, with accents added (B); Danm. No. (A)→Damn. n. (B); <i>Ent.</i> (Comments; A)→ <i>E.</i> (B).
36	Line-end shifts (B); Greek script larger, with accents added (B); misaligned type (Descr.; B); italic larger and spaced out (B).
358	Punctuation changes (B); Greek script larger, with accents added (B); MSS (synonymy; A)→mss (B); Helgoland (A)→Heligoland (B).

No. (Part)	Pl No.	Vol. in Primary (3-Vol.) numbered version	Vol. in Synoptic (4-Vol.) version	Basal signatures, version A of text	Differences, basal signatures, versions B/C compared with A	Species name (Harvey application)
58.	343	3	1	No signature	No signature	<i>Sargassum vulgare</i>
	344	3	4	No signature	No signature	<i>Enteromorpha Linkiana</i>
	345	3	2	VOL. III. 2E	'VOL. III.' shifted right; '2E' shifted right	<i>Melobesia polymorpha</i>
	346	3	2	No signature	No signature	<i>Melobesia lichenoides</i>
	347	3	all 2	No signature	No signature	A. membranacea B. farinosa C. verrucata D. pustulata
	[A; B; C; D]					
	348	3	1	No signature	No signature	<i>Myrionema clavatum</i>
59.	349	3	1	VOL. III. 2F	'VOL. III.' as before (but spaced) '2F' shifted right and spaced differentially	<i>Sphacelaria racemosa</i>
	350	3	4	No signature	No signature	A. <i>Vaucheria marina</i> B. <i>Vaucheria submarina</i>
	[A; B]					
	351	3	4	No signature	No signature	<i>Cladophora nuda</i>
	352	3	4	No signature	No signature	<i>Enteromorpha percursa</i>
	353	3	4	VOL. III. 2G	'VOL. III.' as before; '2G' shifted right	<i>Cladophora flexuosa</i>
60.	354	3	4	No signature	No signature	A. <i>Conferva arenicola</i> B. <i>Rhizoclonium Casparyi</i>
	[A; B]					
	355	3	4	No signature	No signature	A. <i>Cladophora Magdalenae</i> B. <i>Cladophora Gattyae</i>
	[A; B]					
	356	3	4	No signature	No signature	<i>Cladophora Balliana</i>
	357	3	3	VOL. III. 2H	'VOL. III.' position same, but closed spatially; '2H' position same, but closed spatially	<i>A. Furcellaria fastigata</i>
	[A; B]					<i>B. Dumontia filiformis</i>
	358	3	2	No signature	No signature	A. <i>Chrysomenia rosea</i> B. <i>Chylocladia kaliformis</i>
	[A; B]					
	359	3	1	No signature	No signature	<i>Zonaria collaris</i>
	360	3	1	No signature	No signature	<i>Cystoseira barbata</i>

Number in Synopsis	Textual differences between A↔B/C
1	Terminal division line level change (B); italic script larger and more spaced out (B).
333	Terminal division line level change (B); italic script larger and more spaced out (B); Greek script larger, with accents added (B).
152	Punctuation changes (B); line-end shifts (B); Dalkey (A)→Dalky (B).
156	Line-end shifts (comments; B).
157	Line-end shifts (B); punctuation changes (B).
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69	Punctuation changes (legend; B); spacing changes (B); Greek script larger, with accents added (B); <i>Sp.</i> (correctly, in synonymy; A)→ <i>Syst.</i> (B).
79	Punctuation changes and line-end shifts (B); Greek script larger, with accents added (B); 'height' (Descpn; A)→'eight' (B).
287	Danm. (Wyatt; A)→Damn. (B).
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296	Punctuation and spacing changes (B); Greek script larger, with accents added (B).
338	Punctuation changes and line-end shifts (B); Greek script larger, with accents added (B); italic script larger, more spaced out (B).
299	Danm. (Wyatt; A)→Damn. (B).
316	Division line variations (B); italic script larger, more spaced out (B).
315	Division line variations (B); line-end shifts (B).
310	Division line variations (B); line-end shifts (B); Greek script larger, with accents added (B).
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301	Division line variations (B); line-end shifts (B); Greek script larger, with accents added (B); &c. (A)→etc. (B).
207	Line and word spacing tightened (B).
208	
441	Punctuation and spacing changes (B).
443	Line-end shifts and punctuation changes (B); typeface changes (CAP→lower-case) (B).
55	Line-end shifts (B); Greek script larger, with accents added (B); [Mont. Alger.] 'No.' (A)→'n.' (B).
5	Division line level changes (B); line-end shifts (B); punctuation changes (B); Greek script larger, with accents added (B).

Appendix I

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(with geographical subdivision according to places connected with them)

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Appendix II

Index to geographical locations named in *Phycologia Britannica* . . .

Notes:

1. Numbers given after the geographical location indicate the plate numbers for which the texts mention that location.
2. For British counties named, nomenclature and boundaries as before the reorganisation on 1 April 1974 are employed since that state is much nearer the arrangement as it would have been in Harvey's working life.
3. Cross-references are presented to make the list more effective.

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- Rathlin Island (Antrim): 93 (for 35); 207. See also Antrim.
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- Russia: see Kamchatka; Kurile Islands; Novaya Zemlya; Okhotsk; Saghalien; White Sea.
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Appendix III

The published reviews

- (1) Page 201 *The Gardener's Chronicle* 1846 (No. 11) pp. 166–167, Sat., 14 March 1846.
- (2) Page 202 *The London Journal of Botany*, 5: 245, 1846.
- (3) Page 203 *The Witness, Edinburgh*, Wednesday, 18 March 1846.
- (4) Page 204 *Revue Botanique (Duchartre)* 1: 412–414, 1846.
- (5) Page 205 *Annals Mag. Nat. Hist.* 17 (No. 114): 429–431. June 1846.
- (6) Page 206 *The Athenaeum* 1847 (1009): 229, 27/2/1847.
- (7) Page 207 *Botanische Zeitung* 5 (9): 143–146, 1847. Review by Kützing.
- (8) Page 208 Advertisement from *The Athenaeum* (1846 (963): 364, Sat. 11 April 1846) for *Phycologia Britannica*, quoting the thus-far untraced review in *Saunders's Newsletter* of 1846. The latter publication has been checked for the supposed review, without success.

Reviews.

Phycologia Britannica, or a History of British Sea-weeds.

By William Henry Harvey, M.D.

THREE Numbers of this beautiful work have now appeared, with which such of our readers as may not have met with it will thank us for making them acquainted. The drawings are beautifully executed by the author himself on stone, the dissections carefully prepared, and the whole account of the species drawn up in such a way as cannot fail to be instructive even to those who are well acquainted with the subject. The price, too, half-a-crown for each fasciculus of six plates, is extremely reasonable.

A few only of the more recent discoveries have been figured in the supplementary numbers of English botany, and the gleanings of British Algæ, and matter of the most interesting description is daily coming in from various quarters, so as to make such a work absolutely necessary, besides which, the greater part of our more common Algæ have never been illustrated in a manner agreeable to the present state of Algology. The curious fructification of the common *Fucus vesiculosus*, though partly discovered many years ago at Appin, by the late Capt. Carmichael, without the aid of improved lenses, is probably unknown to many botanists; and the same may be said of many points which have not been clearly understood till very lately. More than a third of the species in the three Numbers which have appeared have not before been figured, and some are very recent acquisitions to the British flora.

We are sorry that Mr. Harvey does not include the fresh-water species within his plan, as, notwithstanding the excellence of many of Mr. Hassall's figures, there is still much room for illustration as regards synonymes and affinities; and we fear that the late attempts by Kützing and others to place the genera upon some surer footing, are calculated to aggravate the difficulties which attend their study rather than to relieve them.

PHYCOLOGIA BRITANNICA; or *History of the British Seaweeds*, by W. H. HARVEY, M.D. M.R.I.A., &c., &c.

Four numbers of this beautiful work are already before the public, and the judgment of that public has been pronounced upon it. We believe of its merits there can be but one opinion, viz. that at no period of botanical literature has a more important contribution been made to the Flora of the British Isles than on the present occasion. Of Dr. Harvey's fitness for the descriptive portion of the work, a moment's doubt could not be entertained; but it adds infinitely to the value of the plates, to know that not only are the drawings and analysis all executed by Mr. Harvey's own hands, but the plates (lithographs) also; thus ensuring the most perfect accuracy to the figures, as well as the letter-press. The work will be completed in sixty numbers, and each number contains six coloured plates, at the moderate price of 2s. 6d. These appear without reference to systematic order, but at the conclusion of each volume, and more fully at the completion of the entire work, systematic and alphabetical indexes will be added; and finally a general introduction, to be prefixed to the last volume, will complete the history. The plates represent the natural size and magnified dissections of the species, accompanied by generic and specific characters, synonyms, British habitats, the geographical distribution and general history of each individual, in a fuller and more perfect manner, than has yet been attempted in any work exclusively devoted to the illustration of British Algæ.

We heartily wish it all the success so useful a publication merits.

Parts I., II., III., PHYCOLOGIA BRITANNICA; or, History of British Sea-weeds, containing Coloured Figures, Generic and Specific Characters, Synonyms, and Descriptions of all the species of Algae inhabiting the shores of the British Islands. By William Henry Harvey, M.D., M.R.S.A., Keeper of the Herbarium of the University of Dublin. London: Reeve, Brothers, King William Street, Strand.

We have now in our possession the first three parts of what will form one of the most magnificent works ever published in any department of natural science. From these instalments we clearly see what a treasure the whole work will be. It is a most happy combination of science and art, with elegance and beauty.

Since Dr Greville, who has done so much for marine botany, seems to have no intention of going on with his admirable *Alga Britannica*, how fortunate is it that the crimson and green mantle of Phycozoology has descended on shoulders from which it flows in such graceful folds. Before the appearance of any portion of this work, there could be but one opinion, from what he has already done, of Dr Harvey's thorough fitness for the letter-press department. Happy are we to find that his pen is not less felicitous than his pen. The drawings,—admirably true to nature,—are executed in a most masterly and tasteful style; and well is it that this work has fallen into the hands of Mr Reeve, who has done great justice to the letter-press part of the work, and whose coloured plates are truly exquisite. It is impossible even for those who are ignorant of algology to look at the plates without great delight. To those who have made any progress in the study, the work will be the richest treat. It furnishes every thing they could desire to help them on. The figures of the natural size are exceedingly like; and the magnified portions of the fructification of the frond, and of the stem, &c., will be of the greatest possible service. A glance at these figures will impart more knowledge of the plants than could be communicated by the most accurate description in words.

“Segnius irritant animos demissa per aures
Quam quæ sunt oculis subjecta fidelibus,” &c.

We approve of his plan of giving a specimen in the first volume of each of the genera, as in this way the student will have great help afforded him while the work is going on. There are to be sixty monthly parts, and every part is to have six splendid plates. Some of those already published were new to Britain. We never weary looking at them. We remember reading, long ago, of Proteus driving his marine herds, during Deucalion's flood, to visit the lofty mountains. We have here Flora's marine beauties,—not transplanted to the cold mountain-side,—but brought to our drawing-room tables, and to our comfortable fire-sides. Look at that *Calithamnion gracillimum*—that fern-leaf, as Mrs Griffiths calls it. How exceedingly graceful it is! Or turn to that lovely *Griffithsia Devenensis*, respecting which the author says, “This graceful little plant, which appears different from all the species of *Griffithsia* yet described, was discovered, in the summer of 1840, by the Rev. Mr Hore, at Plymouth, and, in the autumn of the same year, added to the flora of Devonshire by Mrs Wyatt. I record this latter habitat in the specific name, because it affords me an opportunity,

of which I fondly avail myself, to connect the name of Mrs Griffiths with that of the county whose shores she has so long and so successfully explored, where the best part of her life has been spent, and the natural history of which, in all its varied branches, her researches have so greatly advanced.” Or, do you prefer green to crimson? What think you of that *Cladophora gracilis*, or of that still more beautiful *Hypopsis plumosa*? We have heard some say that *Hypopsis plumosa* was the only figure they did not think quite true to nature. Had we never seen Irish specimens we would have said so too; but it is exceedingly like some we have from Lough Swilly. We must say, however, that our Scotch specimens from the west coast are more beautiful, and more conformable to the description given by the author. They are broader in the frond, richer and darker in the green, with more of the glossy varnished appearance. We must send him a specimen for the pleasure of out-emeraldizing Ireland.

After what we have said, it would be tautology to add that we strongly recommend the work. From the mode of publishing in monthly parts, we have not yet got his introduction, &c., promised, which we are sure will be precious. In those circumstances, we may be excused for quoting, in conclusion, some sentences from the Introduction to his “Manual of British Algae,” published a few years ago:—

“The sportsman, it is true, often pursues his game with intense ardour till it is brought down, and then ceases to regard it with interest. So, I fear, it too often is with naturalists; but it is not necessarily so. Nay, of all men, they who are best acquainted with the works of the Divine finger, and who know how justly it may be said, ‘we are fearfully and wonderfully made,’ are surely most bound to cling to the truths of revelation, for they have continually before them collateral evidences of the certainty of those ‘invisible things,’ which are ‘clearly seen, being understood by the things that are made, even His eternal power and godhead, so that they are without excuse.’ If they too often neglect the true use of this knowledge, and rest satisfied with the knowledge itself, the fault and the loss is their own, and must not be charged to science. It is enough for her if she but furnish food which is capable of nourishing the well-directed heart; it is not her province either to cleanse that heart, or to give it powers of digestion. For this she must refer her votary to a higher and a holier voice; and if she ever speak of looking

“Through Nature up to Nature's God,”

she does so with a humble deference to her elder sister, whose province it is to lead the heart to that contemplation. Science and religion must not be confounded; each has her several paths, distinct, but not hostile; each in her way is friendly to man; and where both unite, they will ever be found to be his best protectors; the one ‘a light to his eyes,’ opening to him the mysteries of the material universe; the other, ‘a lamp to his feet,’ leading him to the immaterial, and incorruptible, and eternal. The ‘eye,’ it is true, will grow dim when the light of this world fails; and happy is he who then has ‘a lamp’ lighted from heaven, and trimmed on earth, to guide him through the hours of darkness. But the eye must not be blamed because it is not the lamp; nor should science be disdained because she leaves as far short of just conceptions of the invisible world. Her highest light is but to the threshold of religion; for what a celebrated writer has said of philosophy generally, is equally applicable to every branch of scientific inquiry.—‘In wonder all philosophy began; in wonder it all ends; and admiration fills up the interspace. But the first wonder is the offspring of ignorance; the last is the parent of adoration. The first is the birth-throe of our knowledge; the last is its euthanasia and apotheosis.’”

Phycologia britannica, etc. Phycologie britannique ou Histoire des Algues marines de la Grande-Bretagne, contenant les figures coloriées, les caractères génériques et spécifiques, les synonymes et les descriptions de toutes les espèces d'Algues qui habitent les côtes des îles Britanniques; par M. William-Henry Harvey, conservateur de l'herbier de l'université de Dublin. — Londres, chez Reeve frères; Paris, chez Masson et Comp., place de l'École-de-Médecine.

Nous ne pouvons qu'annoncer ce grand ouvrage dont il n'a paru encore que la première livraison. D'après l'avis qui se trouve en tête de cette livraison, M. Harvey donnera des figures coloriées de toutes les Algues marines de la Grande-Bretagne; il ajoutera au dernier des trois volumes que doit comprendre son livre, une introduction générale à la Botanique marine, et un synopsis systématique de la Flore marine britannique. Il prend pour point de départ l'ouvrage de M. Hassall, c'est-à-dire qu'il laisse de côté toutes les Algues d'eau douce, ainsi que les Desmidiées et les Diatomacées; celles-ci sont, au reste, depuis quelques années, l'objet des travaux assidus de M. Ralfs qui a déjà publié sur elles plusieurs mémoires dans les *Annals and Magazine of natural history*, et qui prépare à ce sujet un grand ouvrage destiné à compléter le tableau de la Phycologie britannique.

Voici le plan de publication adopté par M. Harvey. Chacune de ses livraisons se compose de 6 planches avec leur description; les espèces figurées sont absolument sans ordre et devront être classées plus tard, lorsque l'ouvrage sera complet. Malheureusement l'auteur numérote ses planches d'après leur ordre de publication, ce qui en rendra plus tard la citation assez difficile lorsque cet ordre, purement provisoire, aura été renversé, et ce qui amènera cette particularité bizarre que les espèces d'un même genre porteront les numéros les plus divers. Dans chaque livraison, M. Harvey réunit des espèces toutes de genres différents, de manière à pouvoir figurer ainsi dans son premier volume des représentants de tous les genres de la Grande-Bretagne, ce qui, dit-il, avec les descriptions des espèces et avec la classification présentée par lui dans son *Manual of British algae*, permettra d'étudier avec profit la Phycologie pendant même que la publication se continuera.

Il se publie à la fois deux éditions de la *Phycologia britannica*: l'une, in-4°, du prix de 5 shillings (6 fr. 50 c.) la livraison; l'autre, in-8°, du prix de 2 shil. 6 den. (3 fr. 60 c.).

Phycologia Britannica: or a History of British Sea-weeds, containing Coloured Figures, Generic and Specific Characters, Synonymes, and Descriptions of all the species of Algæ inhabiting the Shores of the British Islands. By WILLIAM HENRY HARVEY, M.D., M.R.I.A., Keeper of the Herbarium of the University of Dublin.

As great admirers of that beautiful portion of our flora, the subjects of which, even more than those of the land, are "born to blush unseen," we hail with extreme pleasure an illustrated 'History of British Sea-weeds.' And above all—on account of the accuracy it insures—one, in which every species inhabiting the shores of the British Islands will be drawn, lithographed and described by the same hand. The importance of this combination in the one individual is well known to all naturalists who have had any experience; the species being generally described by one party, drawn by a second, and engraved by a third;—and truly may we say, that "small by degrees and *beautifully less*" in accuracy is sure to be their fate the more hands they pass through.

This work is published in royal octavo, to admit of as many species as possible being figured of full natural size; when this cannot be done, a double plate will occasionally appear; and of the giants of the deep, a portion will be given of natural size; when the species are minute, two will be represented on the same plate, as we already see done in the *Elachistea*, seven species being thus figured in the one number instead of six, as announced in the prospectus. In every instance microscopical representations of the structure, fructification, &c. will appear, and all will be coloured.

The descriptive portion will be much more full than in any previous work in which our native plants have been treated of, for the 'Phycologia Britannica' will as a whole occupy a place by itself. We have ample descriptions of the species; their geographical distribution; their distribution on our own coasts; and their general history. To use the author's words:—"The plan which I have adopted is, to select the species illustrated in each number from several different genera, taken from as many families, so that there shall always be a variety of subjects in the monthly number; and, as early in the work as possible, to figure one species at least of every genus, so that by the end of the twentieth number, which will complete the first volume, illustrations of all the genera may be placed before the student. This, with the aid of the descriptions of species and sketch of a general arrangement afforded by the 'Manual'* (which may serve as a synopsis of the principal contents of the 'Phycologia'), will afford him very great facilities for determining his plants during the progress of this work, even though the particular species which he has under examination may not be among those then figured in it. Were the plants to be published systematically, it is obvious that not till the completion of the entire work would the student have as much assistance toward understanding the genera, as he will now have at the end of the first volume. This

arrangement is therefore decidedly the best for those who have purchased the 'Manual,' and as it appears to me, for those also, who, now commencing the study of *Algology*, wish to obtain speedily a general view of the principal varieties of marine plants."

Sixty numbers will complete the work, five of which are now before us, and we question whether a more beautiful botanical work, plates and typography combined, has ever issued from the press,—at so low a price we feel certain that none has. In these five numbers appear species altogether new (*Griffithsia devoniensis*, *Elachistea attenuata*); some before known in other seas, but now for the first time added to our flora (*Chordaria divaricata*); and several species figured for the first time.

So favourably is Mr. Harvey known to the botanical world as an algologist, that to speak of his excellent treatment of the subject in all its bearings, as known to the present time, seems to us superfluous. We say advisedly as known to the present time, for sufficient attention has not hitherto been paid to the general œconomy of the Algæ. A knowledge of the peculiar rocks, soils, &c. affected by the various species; the ranges of depth, influence of currents and tides, not only on their presence, but on their growth, rendering them dwarfed or luxuriant according to circumstances, have not, at least in our own country, been properly studied. These causes have a much more important bearing on Algæ than a mere difference of latitude. We trust therefore that the author will throughout his work afford us all the information he can obtain on these interesting points—in natural history every positive observation is of value. We have ourselves attended to some extent to what is here suggested, and have been much interested to find upon coasts of similar mineralogical and geological character, though separated by several degrees of latitude, the same broad botanical features; indeed, the mere appearance of a particular character of coast at any part of the British Islands suggests to us its productions. Yet are there some species so far influenced by latitude, as not to be found further south than our more northern shores, and others again not further north than our more southern coasts: in such cases our shores are the extreme limits of the species in the respective directions. Further we need not here enter into this subject, but instead, call upon our author to give us all the information in his power.

The 'History of British Sea-weeds' we can most faithfully recommend for its scientific, its pictorial, and its popular value. The professed botanist will find it a work of the highest character. Persons who have not commenced the study, or who desire merely to know the names and history of the lovely plants which they gather on the margin of the sea, will find in it when complete the faithful portraiture of every one of them. Those who have not that happy privilege, but in "close cities pent," or confined to the inland country, will have before them pictorial representations only less fresh and glowing than the beautiful originals; and those who merely desire what the French call a work of luxury for the drawing-room table, will, owing to the extreme variety and delicacy of form of the objects, combined with the most glowing colours, find that no work at the same cost is more attractive, or should be preferred before it.

* Manual of British Algæ, by the same author, published a few years ago.

Phycologia Britannica; or, a History of British Sea Weeds. Part I. By William Henry Hervey, M.D.—This work which has long been anxiously looked for by British botanists—especially those devoted to the study of Cryptogamic Plants—will not be the less welcome because it has come so late. There are few persons in Great Britain who so largely combine the necessary knowledge with that power of observation and cautious induction which enables justice to be done to the subject as Dr. Hervey. The Part before us contains plates and descriptions of six species: and the author proposes to publish in each Part species from several different genera taken from as many families—so as to secure a variety of subjects—and make good as soon as possible the publication of one species at least of every genus. In this way, by the time when the twentieth Part shall be published every genus of Marine Algæ will be illustrated. The drawings accompanying the present Part are beautifully executed; and the microscopic dissections are more elaborate than any previously devoted to this tribe of plants in this country. The work will be confined to the sea-weeds: although we hope the author will meet with that encouragement which will induce him to take up the British Freshwater Algæ—a subject with which he is not less familiar than with the present, and which has hitherto been but imperfectly treated.

Phycologia britannica: or a History of british Sea-Weeds, containing coloured figures, generic and specific characters, synonymes and descriptions of all the species of Algae inhabiting the shores of the british islands. By William Henry Harvey. London. 1846. gr. 8.

Von diesem bedeutenden Werke, welches in der Einrichtung der Cryptogamic Scotch Flora von Gre-ville und der English Botany gleicht, liegen uns gegenwärtig 10 Hefte, jedes mit 6 Tafeln Abbildungen, vor. Wie das Werk von Hassall die Süßwasseralgen, so soll dieses die britischen Seealgen behandeln. In der Reihenfolge der Tafeln wird keine systematische Ordnung befolgt, sondern die Gegenstände werden von dem Verf. geliefert, wie sie gerade frisch zur Hand liegen. Das Werk ist dem Director der Königl. Gärten zu Kew, Will. J. Hooker, gewidmet. In der Vorrede spricht sich der Verf. über den Plan des Werkes aus und bemerkt, dass er die *Desmidiaceae* und *Diatomeae* ausschliessen werde, theils weil dieselben so zweifelhaft zwischen dem Pflanzen- und Thierreich stelen, theils aber auch, weil Ralfs dieselben noch in einem besondern Werke zu bearbeiten gedenke. Man sieht hieraus, dass die Briten in jeder Beziehung ein praktisches Volk sind; sie vertheilen die Arbeiten ohne Neid unter sich, unterstützen sich gegenseitig, während bei uns Deutschen nicht selten gutgemeinte und ehrliche Anerbietungen vornnehm zurückgewiesen und dadurch Veranlassung werden, dass jeder sich auf seinen eignen Füßen eine feste Stellung zu sichern sucht.

Der Inhalt ist folgender: Plate I. *Dictyota Atomaria*. Fig. 1. Abbildung in natürlicher Grösse sehr schön; Fig. 2. 3. u. 4. mikroskopische Analyse mangelhaft, es fehlt der Querdurchschnitt. Pl. II. *Delesseria Hypoglossum*, verdient dasselbe Urtheil. Meine Darstellung der Fruchtorgane der Delesserien und die darauf neu und sicher gegründeten Gattungen finden immer noch keine Würdigung; man hat sich nun einmal zu sehr an das Auswendige, Oberflächliche, was nicht viel Mühe macht, gewöhnt. Pl. III. *Bryopsis plumosa*. Pl. IV. *Ectocarpus brachiatus*; ich sehe bei dieser Abbildung, dass ich, gestützt auf französische Exemplare dieses Namens, unter diesem Namen eine andere Art (unter *Corticularia*) beschrieben habe. Pl. V. *Calothamnion gracillimum*; im Ganzen gut. Pl. VI. *Cladophora lanosa*; die Farbe ist viel zu dunkel gegen meine, die ächte Roth'sche Pflanze. Pl. VII. *Polysiphonia furcellata*; eine sehr hübsche Figur, nebst hinreichender Analyse, doch ohne Kapsel-früchte. Pl. VIII. *Punctaria latifolia*; Fig. 1. natürliche Grösse sehr schön, die mikroskopische Analyse (Fig. 3. 4.) mangelhaft. Pl. IX. *Nitophyllum versicolor*; eine hübsche Darstellung der Art in natürlicher Grösse, von der jedoch die Früchte noch nicht bekannt sind; sie scheint aber hinreichend von ihren Verwandten (*N. Bonnemaisonii* u. *Guelini*) verschieden. Ich hätte übrigens gewünscht, dass Verf. den hybriden Gattungsnamen mit dem von Montagne verbesserten — *Aglytraphyllum* — vertauscht haben möchte. Pl. X. *Polysiphonia Richardsoni*; gute Abbildung. Pl. XI. *Asperococcus Turneri*; die Analyse mangelhaft (Fig. 3. gibt sogar ein ganz falsches Bild), sonst gut. Pl. XII. *Cladophora rectangularis*; recht gut. Pl. XIII. *Kalyptenia reniformis*; eine hübsche Tafel, bei der auch die Analyse (Fig. 6.) besser gelungen ist. Sie nähert sich dem Bau nach meiner Gattung *Sarcophyllis*. Pl. XIV. *Carpomitra Cabrerae*; im Ganzen gelungene Figur, auch die Analyse befriedigend. Pl. XV. *Gracilaria polycarpa*; die Analyse der Frucht ganz verfehlt, das Uebrige gut. Pl. XVI. *Griffithsia deroniensis* (n. sp.); gut. Pl. XVII. *Chordaria divaricata*; Fig. 1. natürl. Grösse, sehr gut, die Analyse befriedigend. Pl. XVIII. *Cladophora gracilis*; gut, nur die Farbe zu dunkel. Pl. XIX. *Haliseris polypodioides*. Pl. XX. *Phyllophora Brodiaei*. Pl. XXI. *Seirospora Griffithsiana*; gut! Pl.

XXII. *Ectocarpus Hinksiae*. Pl. XXIII. *Nitophyllum Bonnemaisoni*. Fig. 1. gut, Analyse mangelhaft. Pl. XXIV. *Cladophora fracta*; wie Pl. XVIII. Pl. XXV. *Striaria attenuata*; wie Pl. XXIII. Pl. XXVI. *Delesseria ruscifolia*; ebenso. Pl. XXVII. *Wrangelia multifida*; ebenso. Pl. XXVIII. *Elachistea attenuata*; gut, ist aber mit meiner *Myriactis pulvinata* aus dem Golf von Neapel identisch. B. *Elachistea velutina*; befriedigend. Pl. XXIX. *Microcladia glandulosa*; ist eigentlich ein *Ceramium*, die Gattung muss daher eingezogen werden, es sei denn, dass man in der einseitigen Stellung der Vierlingsfrüchte an den Spitzen der Aeste ein hinreichendes Gattungsmerkmal besässe, dann würde man aber wohl auch einige bis jetzt bei *Ceramium* beschriebene Arten dazu bringen müssen. Die Abbildung recht gut. Pl. XXX. *Cladophora Braunii*; gut. Pl. XXXI. *Mesogloea vermicularis*; ein ungewöhnlich dickes Exemplar, mit befriedigender Analyse, nur sind die Conturen sehr grob. Pl. XXXII. *Rhodomenia bifida*; muss wegen der Bildung der Vierlingsfrüchte von *Rhodomenia* getrennt werden; ich habe daraus die Gattung *Rhodophyllis* gebildet. Pl. XXXIII. *Cladostephus verticillatus*; gut. Pl. XXXIV. *Odonthalia dentata*. Pl. XXXV. *Codium adhaerens* und *C. amphibium*, letzteres erst 1844 von Moore und Harvey in den Ann. and Mag. of bot. hist. beschrieben; beide sind gut dargestellt. Pl. XXXVI. *Nenalion multifidum*; gut! Pl. XXXVII. *Sphacelaria scoparia*; die Analyse unzureichend; beim Querschnitt ist die kleinzellige Corticalschicht nicht dargestellt, statt derselben dient ein dicker dunkler Ring; ferner sind die Darstellungen von Fig. 2 u. 4. so, dass man meint, die Glieder wären einzellig, während sie doch der Länge nach in mehrere prismatische Zellen getheilt sind, was Alles nicht dargestellt ist; nach solcher mangelhaften Analyse ist es mir dann freilich erklärlich, warum die neue Gattung *Stypocaulon* (nicht *Stypopodium*, wie Verf. citirt), die ich aus dieser Art bildete, keine Anerkennung gefunden. Pl. XXXVIII. *Naccaria Wiggii*; im ganzen gut; bei Fig. 7., welche einen Längenschnitt darstellt, fehlt aber die Mittelaxe. Pl. XXXIX. *Uva Linza*; hier ist kein Querschnitt beigelegt. Pl. XL. *Dasya ocellata*. Pl. XLI. *Myrionema Leclancherii* und *M. punctiforme*. Pl. XLII. *Chylocladia reflexa*; die Analyse fehlt. Pl. XLIII. *Enteromorpha erecta*; mangelhaft. Pl. XLIV. *Placodium coccineum*. Pl. XLV. *Laminaria Fascia*. Pl. XLVI. *Spyridia filamentosa*. Pl. XLVII. *Fucus serratus*. Pl. XLVIII. *Helicothamnion scorpioides*. Pl. XLIX. *Desmarestia aculeata*. Pl. L. *Rhodomela lycopodioides*; es fehlt hier die Darstellung der Mittelaxe beim Querschnitt und Längenschnitt. Pl. LI. *Bonnemaisonia asparagoides*. Pl. LII. *Fucus Mackai*; Fig. 1. eine sehr hübsche Figur mit Früchten, wie ich sie noch nicht gesehen. Pl. LIII. *Gelidium corneum*, in mehreren recht gut dargestellten Formen in natürl. Grösse. Pl. LIV. *Conferva tortuosa*, implexa u. *arenosa*; die Synonymie der beiden ersten ist zum Theil noch recht verwickelt. Pl. LV. *Laurencia pinnatifida*; ein grosses schönes Exemplar. Pl. LVI. *Sporococcus pedunculatus*. Pl. LVII. *Gloiosiphonia capillaris*. Pl. LVIII. *Calothrix fasciculata* und *scopulorum*; die Abbildungen von beiden sind ungenügend. Pl. LIX. *Dumondia filiformis*. Pl. LX. *Cystoseira granulata*; gut!

Im Allgemeinen finde ich die Abbildungen der Algen in natürlicher Grösse sehr gelungen, oft sogar sehr schön und treu, besonders in Bezug auf die Farbe, und darum haben diese Tafeln bei der Bestimmung der Arten ihren grossen Nutzen; nur die Analysen sind meist unbrauchbar, wodurch freilich ihr wissenschaftlicher Werth sehr beeinträchtigt wird. Wir wünschen dem Verf. Müsse und Kraft, dass er in den folgenden Heften die wahre Wissenschaft ebenso berücksichtige, als die Liebhaber, deren es freilich in England eine grössere Anzahl gibt, als in irgend einem andern Lande.

PHYCOLOGIA BRITANNICA ;

Or, HISTORY of BRITISH SEA-WEEDS, containing coloured Figures, Generic and Specific Characters, Synonymes, and Descriptions of all the Species of Algæ inhabiting the Shores of the British Islands. By WILLIAM HENRY HARVEY, M.D. M.R.I.A., Keeper of the Herbarium of the University of Dublin.

"The drawings are beautifully executed by the author himself on stone, the dissections carefully prepared, and the whole account of the species drawn up in such a way as cannot fail to be instructive even to those who are well acquainted with the subject. The price, too, *half-a-crown* for each fasciculus of six plates, is extremely reasonable. More than a third of the species in the three Numbers which have appeared have not before been figured."

Gardeners' Chronicle.

"Before the appearance of any portion of this work, there could be but one opinion, from what he has already done, of Dr. Harvey's thorough fitness for the letter-press department. Happy are we to find that his pencil is not less felicitous than his pen. The drawings—admirably true to nature—are executed in a most masterly and tasteful style; and well is it that this work has fallen into the hands of Messrs. Reeve, who have done great justice to the letter-press part of the work, and whose coloured plates are truly exquisite. The figures of the natural size are exceedingly like; and the magnified portions of the fructification of the frond, and of the stem, will be of the greatest possible service."—*Edinburgh Witness.*

÷ "Besides the beautiful figures of the plant in its entire state, the microscopical dissections which are introduced into each plate are beyond all praise, and will, we doubt not, tend vastly to advance the progress of physiological botany. The comparatively recent employment of achromatic object glasses, with other important improvements in the microscope, have placed in the hands of the naturalist an instrument which has revealed to him secrets of which our predecessors had no idea; and perhaps our readers are not all aware that among the lower forms of vegetable organization a series of phenomena, as unexpected as they are mysterious, have within the last few years been detected. One of the great advantages of the work which constitutes the subject of the present notice, is, that with all its high scientific character, it is admirably adapted to popularize the department of knowledge of which it treats. With its beautiful figures and lucid descriptions it brings home to our very drawing-rooms the crimson sea-weed fresh and unfaded, almost as if just gathered from its ocean bed; the mere turning over of the pages presents to the reader's eyes forms of beauty of which he before never dreamt, and no matter how little accustomed he may be to have his thoughts directed to such subjects, he cannot help rising from the perusal of the work no longer ignorant of some of the fairest forms of creation."

Saunders' News Letter

London: Reeve, Brothers, King William-street, Strand

Appendix IV

Miscellaneous information on *Phycologia Britannica*

1. Factors potentially affecting accurate recording of publication dates of parts of the work

Sequences of part dates during the currency of the production of the primary version of *Phycologia Britannica* are already presented in Price (1984). In case apparently contradictory evidence disagreeing with or refuting conclusions reached there should emerge, it is worth recording here those characteristics of the general situation which may have affected the quality and nature of any such evidence. These characteristics are recorded here as specific cases known to have occurred; there may be others hitherto unrecorded.

A. Announcement inside the front wrapper of Part 3 as issued:

The text of this announcement was as follows:

HARVEY'S BRITISH SEA-WEEDS.

To Correspondents.

Messrs. Reeve have much pleasure in stating that the *PHYCOLOGIA BRITANNICA* has been hitherto, and they trust always will be, ready for trade-delivery *two days prior to publication*.

They also take this opportunity of announcing that Part 1, of which copies were exhausted by the 15th. ultimo, is re-printing, and will be ready for delivery on the 15th of the present month.

King William Street Strand.

March 1st, 1846.

This is a literal restatement of the text of the announcement, with all typefaces and punctuation precisely as originally given.

As will be evident, the information so presented highlights certain possible results:

- (i). That trade delivery two days earlier than publication date (day) may have occasionally resulted in slightly premature release to the public or to subscribing institutions, with consequent recording of so-called publication date in the ultimate few days of the month before rather than on the first (or in the first few days) of the correct month. It is, of course, quite legitimate to argue that if trade delivery to the Act institutions was practised, the recording by them of publication date to that pattern, particularly if accompanied by erroneous release to public or subscribing institutions, *constitutes actual publication* on whatever was the trade release date.
- (ii). Part 1 was sold out by 6 weeks (i.e., 15 February) after its publication date on (supposedly) 1 January 1846. It was reprinting so as to be re-released on 15 March 1846. The potential dating confusion inherent to *that* situation requires no explanation and very little emphasis!

Announcements such as these were not strictly limited to publication in the actual parts of the work itself; see B below.

B. Announcements in The Athenaeum, 1846 (957): 232, dated 28 February 1846

This announcement by Lovell Reeve concerning publications listed, *inter alia*, as being published that day, Part 3 of *Phycologia Britannica* (cf. trade release comments above) and interestingly continued:

Part 1, reprinting, will be ready for delivery on the 15th March

At least the re-release date is consistent between the announcements in the work and elsewhere!

The presence in print of these two announcements A and B suggests that Reeve, in the early stages of the work's currency, had been over-cautious in his print runs, underestimating the demand for the work. Initially, I believed that the failure to trace other similar advertisements relating to other re-printing of different parts perhaps indicated that whatever adjustments this had led Reeve to make to his print-runs had resulted thereafter in *over-estimates* of demand, and this appeared borne out to some extent by the existence of remainders of virtually all plate-texts, acquired some years ago by Dr W. F. Farnham, who kindly passed a set on to me. Any such reprinting could also go some way toward explaining the different qualities of colour and shade that may be encountered amongst the different sets of the so-called 3-volume 'first issue' (numerical order of plate issue), if plate reprinting had also been usual (see Appendix IV (4), for more discussion).

It does not, however, seem likely that the suggested over-estimating was consistent, unless the demand was remarkably irregular for different parts as issued, a situation which seems highly unlikely. Subscribers who started off with the work would be likely to continue with consistency, if at all, and new later subscribers would be likely to require whole back numbers, not a mosaic pattern amongst them consequent on likes or dislikes, artistic or scientific. The reason for stating thus as to the inconsistency of over-estimating by larger print-runs lies in the existence of a note, now in my possession, which was present in my copy of part 28 in its wrappers. This was clearly written to whomsoever was the original purchaser of that part 28, from someone at the publishers (Lovell Reeve) or at the supplying Agents; it reads:

4 Parts (Nos. 12. 14. 15 & 16) are at this time out of print, but will be republished
in about 3 Weeks—27 April 1848—

23 parts herewith

1 previously

—

24

—

Hence it seems that the absence of advertisements on reprinting of parts during the later currency of the overall work does *not* establish that it was not occurring, but the tone of the above note would suggest that the pattern of reprinting was purely a reaction to demand, not forward plan or policy. Numbers reprinted of parts at any one time could therefore very well have been quite small.

It is probable that there is parallel between the requirement to reprint certain parts for whatever reasons and the established existence of typeface and arrangement/content variation versions of the text in known cases (see Table I). There is no guarantee that this parallel is precise. It is more probable that typeface variation would occur when the time interval between original printing and required subsequent printings was longer, less probable when the interval was shorter and the type therefore likely to be retained as set. The need to revise data or arrangement in any species entry would, of course, probably destroy even that potentially direct relationship. The chance non-availability of the usual typesetting organisation employed could also have caused variation patterns when there was pressure to reprint quickly.

2. Factors potentially affecting other variations between sets of the work

A. Fundamental textual changes

In general, the textual variations detailed earlier in this study involved *no* fundamental changes in content. Changes in taxonomic and/or nomenclatural opinion caused Harvey to alter radically and publicly the arrangement, content and names used in *Phycologia Britannica* for only two species after the initial publication. These were those of plate 15 (originally called *Gracilaria polycarpa* J. Agardh), which became *Gracilaria multipartita* J. Agardh, and plate 48

(firstly *Bostrychia scorpioides* (C. Agardh) Montagne), which was altered to *Helicothamnion scorpioides* (C. Agardh) Kützinger.

These changes originated differently, in the case of plate 15 from additional information provided by a colleague and for plate 48 from a change of mind by Harvey himself. René Lenormand, a French contemporary and friend of Harvey, pointed out to him that, in connection with plate 15, the *Rhodomenia polycarpa* of Greville (the origin of the epithet first used here) was applied to a plant identical to that forming the basis of the older *Fucus multipartitus* of Clemente. The original letterpress for plate 48 stated that ‘The name *Helicothamnion*, proposed by Kützinger for *B. scorpioides*, must be laid aside, as that of *Bostrychia* has the priority, is equally applicable, and more euphonious.’ Some event (it is not yet clear what) led to a change of mind, since the revised (*Helicothamnion scorpioides*) letterpress indicated: ‘it forms a connecting link between several genera. The nearest group to which it approaches is to *Bostrychia* of Montagne, and I regret that I cannot coincide with my learned friend in associating it with the other individuals of that genus. In *Bostrychia* proper, the frond has a wide, articulated central tube, surrounded by a single row of coloured cells; here the frond is solid, consisting of several concentric rows. According to modern views of arrangement, such differences of structure are regarded as of generic importance.’

Since these texts were revised by Harvey after issue of the original parts (3 and 8) to subscribers, Lovell Reeve was obliged to send out revised texts with a Notice, which stated:

Subscribers to the ‘PHYCOLOGIA BRITANNICA’ are requested to cancel the letter-press issued with Plates XV. and XLVIII. at the time of publication, and to substitute the enclosed.

As a result of this, which clearly occurred nearer in time to the original issue of plate 48 than that of plate 15, various different combinations of original text and revised text tend to be found, the most usual seeming to be the original version of 15 with the revised version of 48. It is not easy to see why this should be, since both would occur in volume 1 as completed, even of the original numerical version; a combination of both revised plate-texts changed or neither changed would have seemed much the more likely. Neither of these two texts reverted finally in this work to the original naming; each is known to exist in textual versions of state 1 (original); state 2, version A (first printing of changed form and name); state 2, version B (second printing, with the usual Greek script typeface changes). Several potential combinations may thus theoretically be met with in bound sets.

B. Significant changes in plates

Variations detailed in A above did not, fortunately, lead directly to any need to alter plates. Most of the detected variation between copies of the same plate in this work arise from the market demand, reprinting or otherwise, and are insignificant on any basis other than confusion due to sloppy coloration and consequent poor detail. For data on such pattern of change, see Appendix IV (4), below.

In at least two cases, however, matters could have been more significant, and it is possible that the event to be noted here *was* more widespread; the available evidence does not preclude that. Filed in W. J. Hooker’s English Letters for 1847 is a letter (f. 215) written by Harvey to Hooker on 25 May [1847]. This letter, talking in general terms about various aspects of the *Phycologia Britannica*, includes:

Are you aware that *two* of the plates in the 1st Number had lately to be *re-drawn* by some one that Reeve employed, and are *not* well copied. Pl. 2 & 5 are the subjects. The early subscribers have therefore better copies than can now be had of the 1st Number. I hope none other may perish in a similar manner.

This is so largely self-explanatory as to require little or no further direct comment, save for on one very curious facet. Plates 2 (*Delesseria hypoglossum*) and 5 (*Callithamnion gracillimum*) are precisely those that Harvey drew very early on (see earlier and Plates 4 and 5) under

Fitch's tuition whilst at Kew in 1845, as his 'Lesson N^o 1' (pl. 2; see Plate 4) and 'Lesson N^o 2' (pl. 5; see Plate 5). They were deemed sufficiently well done to be utilised directly as the originals of the two published plates. It is not clear what significance can be read into this, but some very interesting speculation immediately arises!

C. *The different overall arrangements of the completed work*

A slip entitled 'Directions to the Binder' was issued at a point at the end of the work that is presumed to be simultaneous with the circulation of part 60 and the Synopsis. This slip gives very precise instructions on the various versions of arrangement and final binding, which seem in general to have been adhered to, particularly in the more popular and practical systematic arrangement (4 volumes). The 3-volume version, which had the advantage, retaining the numerical order of original issue, of being bindable as volumes were completed, is despite that only very occasionally encountered in a work which (in any version) appears less and less often on the market. Since there are undoubtedly very few copies remaining extant of the original instructions slip, the complete text of that is repeated here. Little need be added, for its message is precise and self-explanatory, even making it clear why so few copies of the precursor *List of British Marine Algae* are ever encountered. The slip that bears these instructions is a mere 6" (15 cms) long by 3" (7.5 cms) high.

DIRECTIONS TO THE BINDER

The Plates and Letter-press of this work may be bound either in the order of publication, or arranged systematically.

If bound in the order of publication the 'Phycologia' forms three volumes, each of 120 plates; and for this purpose three title-pages, dated respectively 1846, 1849, and 1851, and three indices, are given. The Synopsis and its index, furnished with Part LX., may be prefixed either to the first or the third volume. The "*List of the British Marine Algae arranged systematically*," published with Part XX., is to be destroyed.

If bound *systematically*, the plates are to be arranged in the order of the *Synopsis of the Species*, given with Part LX., and will form four volumes, for which title-pages (dated 1846–1851) are supplied.—In this case the three old Titles and the "*List*" above named are to be destroyed, and the "*Synopsis of Genera and Species*," with Index, as well as the three indices of species and synonyms, are to be prefixed to the first volume. In a few cases where two or more species are figured on the same plate, the plate is to be placed in the order of the number of the first species.—Plates 357 and 358, with their letter-press, being supplementary, are to be inserted at the end of the Rhodospirae in vol. 2.

For further general comments on copy variation patterns, see p. 214.

3. **Standard retail selling prices and the advertisement of parts and volumes: data pertinent**

In the early periods of the issue of this work, as well as subsequently around the times when volumes or volume sets were completed and offered for sale in that complete form, advertisements tended to emphasise, or at least cite clearly, the prices at which the *Phycologia Britannica* was retailing. The data which follow are largely derived from those sources, although amplified, confirmed or altered according to supplementary data in correspondence and other manuscript sources.

(i) *Parts*

Royal 8^{vo} (smaller paper) version retailed at 2/6d per part.

Royal 4^{to} (larger paper) version retailed at 5/- per part.

Rather few copies in Royal 4to were produced; these were as printed text and plates no

larger, but merely printed on the 'best' paper at Royal Quarto size, thus having wider margins. In the early currency of the work, both versions were advertised (as, for example, with *The Athenaeum* advertisement for part 1, of 27 December 1845). Quite soon, however, the smaller paper version became the only one mentioned in some advertisements. This was probably due to a combination of restricted interest in the inflatedly priced Royal 4^{to} version (although there are cases cited in correspondence where purchasers would have taken that version had they known of its existence) and of fairly low numbers of that version being available for retail—Harvey specified that presentation copies to certain important individuals should be of the 'best version'. Nevertheless, *The Athenaeum* carried fairly consistently notices that referred to both Royal 4^{to} and Royal 8^{vo}; examples are the issues of **1845** (948): 1234, 27/12/1845; **1846** (957): 232, 28/2/1846; **1846** (992): 1128, 31/10/1846; **1847** (1006): 138, 6/2/1847; **1847** (1009): 229, 27/2/1847; **1847** (1010): 267, 6/3/1847; **1848** (1060): 178, 19/2/1848; **1848** (1065): 325, 25/3/1848; **1848** (1070): 446, 29/4/1848; **1848** (1074): 523, 27/5/1848; **1848** (1076): 570, 10/6/1848; **1848** (1079): 643, 1/7/1848; **1848** (1083): 738, 29/7/1848; **1848** (1085): 788, 12/8/1848; **1848** (1086): 820, 19/8/1848; **1848** (1087): 894, 2/9/1848; **1848** (1092): 989, 30/9/1848; **1848** (1096): 1087, 28/10/1848; **1848** (1101): 1194, 2/12/1848; **1849** (1114): 214, 3/3/1849; **1849** (1123): 451, 5/5/1849; **1850** (1161): 109, 26/1/1850; **1850** (1167): 254, 9/3/1850; **1850** (1169): 322, 23/3/1850; **1850** (1192): 933, 31/8/1850; **1850** (1196): 1028, 28/9/1850.

This is not an inconsiderable amount of advertising, even in a single journal of 'literary intelligence' and general cultural background (of which a number still then existed), and tends to contrast rather starkly with Lovell Reeve's *dictum* (see earlier) that he spent comparatively little on advertising his publications. When, to this, are added the advertisements in the same journal and citing only the cheaper Royal 8^{vo} version at 2/6d (list below), the feeling is strong that members of the relevant public could hardly have been unaware of the work.

Royal 8^{vo} solely was referred to in *The Athenaeum* of **1845** (940): 1062, 1/11/1845; **1846** (952): 81, 24/1/1846; **1846** (953): 134, 31/1/1846; **1846** (961): 334, 28/3/1846; **1847** (1017): 428, 24/4/1847; **1847** (1051): 1307, 18/12/1847.

Taking the pattern for this particular journal as indicative, it seems likely that the preponderance of earlier advertisements referred principally or only to the version Reeve thought most likely to sell to the general public interested but outside directly phycological/botanical circles of initiation. Royal 4^{to}, the expensive large paper version, required initially less advertising since likely to be used for either presentation/the author's own purchases, or sale to moneyed amateur scientists or bibliophiles whose tastes and pockets ran to the better versions of works judged worthy of their shelving space. Fewer numbers by far were printed. Possibly even then they were not exhausted, which may explain the flood of early-1847/1848/1850 advertisements—a measure both to revive perhaps flagging general interest, despite maintained consistency of appearance, and to induce sales of sluggishly-moving and available large paper copies of parts. It is possible that the fewer notices of part appearance and sequence during 1847 and 1849 (in no way related to any inconsistency of publication then) are correlated with the greater natural publicity and interest stimulated in those years because of the completion of volumes 1 and 2 respectively, re-emphasising existence, completeness, maintenance of promised production, convenience of whole-volume purchase, and indeed everything which kept the work in the limelight.

(ii) Volumes

The three-volume (numerical order of issue) version was issued complete as individual volumes as they were completed by the monthly system. These were priced as:

Ordinary size (Royal 8 ^{vo})	50/- (£2.10s.) per volume.
Large paper size (Royal 4 ^{to})	£5 per volume.

Statements made regarding the 3-volume version in Royal 8^{vo} usually include the full price of the whole set as £7.10s. It is easy to see that this should happen by extrapolation from those earlier advertisements put out when the completed volumes 1 and 2 were already available but volume 3 was still in progress. The assumption appears to have been made that even then the

total overall price would be $3 \times 50/-$, i.e., the £7.10s. The latter seems to have been correctly the total when the 4-volume (systematic arrangement) Royal 8vo series was offered for sale with new title pages as a 'New Edition' (cf. Badham's *Esculent Funguses*, Ed. 2, 1863: publisher's announcements, p. 9, in the rear pages). However, at the first state (3-volume) stage in the publication, it appears that the 3rd volume was retailed at £2. 12s. 6d, thus accounting for the occasionally noted statement that the overall price was £7. 12s. 6d. Even here, there is some equivocation.

Bent's Monthly Advertiser, No. 568, pp. 148–150, of 11 August 1851, the year of completion of *Phycologia Britannica*, lists among other works published between 9 July and 9 August 1851 an entry (p. 149) for the *Phycologia Britannica* as 'V[ol]. 3, 4to, 2l.12s.6d.—complete, 3 v[ols]., 7l.12s.6d.' All well and good, but the reference here is to the '4to.' version which, if other advertised information (cf. above—repeated almost *ad nauseam*) is correct, *should* have been advertised at something around £15. It is probably that this is a mis-assessment of the publisher's ideas on size of the work; Royal 8vo., the publisher's description, is not vastly short in height and general appearance of works that would otherwise have been assessed as 4to and this appearance may have led the *Monthly Advertiser* to identify a quarto version as Royal 8vo and to state the price accordingly. If so, it still represents a mix-up but could be a confirmation of the overall price of the 3-volume Royal 8vo set as £7. 12s. 6d. Although there is no traced advertised statement of price to that effect, analogy suggests that the 4to complete 3-volume version may have been initially priced not at £15 as a straight $3 \times$ multiple of the single volume price, but at £15.5s, the last volume being individually £5.5s.

The 4-volume Royal 8vo systematic version, as offered for sale complete rather than resorted from the numerical order by earlier purchasers of the part publication during issue monthly, was stated by Batters (Manuscript Bibliography of British Phycology; BMNH) to have been priced originally at £7. 17s. 6d. The later 'New Edition' of the 4-volume version (see above), by contrast, was priced at £7. 10s. when advertised in 1863.

Actual advertisement of the volumes as they appeared has not been followed slavishly simply in order to trace the advertisement pattern; it seems in any case to have been very much of a mosaic. In *The Athenaeum*, volumes 1 and 2 together, or volume 2 as completed, were noticed quite frequently throughout later 1849 and 1850. Presumably the initial inspiration to purchase volume 2, on its completion in April 1849, had begun to tail off and these were attempts both to resuscitate that and to maintain part purchase towards volume 3.

It did not take very long in the background jockeying between author and his associates, and the publisher, before the matter of selling price came into some prominence. The amount spent by Reeve (or *not* spent, as the case may be) on colouring the plates and the effect that had in turn on the standard of certain plates was already being debated by 26 April 1846, especially in the context of the part for June of that year (part 6). In his usual role as 'Umpire' (the letter concerned so begins!), J. D. Hooker was appealed to by Harvey for support and amongst the complaints aired was one that Reeve was not spending enough to maintain standards necessary in the colouring of plates for that part; Harvey uttered the plaintive cry then

'We have priced the work too low—and I know not how the difficulty is to be met.'

4. Analysis of the merits and accuracy of colouring and form in the *Phycologia Britannica* plates

A fair degree of unevenness exists throughout the run of the work in all its different versions and volumes/sets. Thus, any generalisation here is going to present injustices and over-commendations at some stage or other. Bearing this in mind, it is still fair to say that the colour printing of the earlier produced versions of the primary edition is far superior to the rendering in any of the subsequent 'editions' and probably so to most of the reprinting that was carried out, where necessary, when supplies ran out of any of the parts. The supply of plates

throughout was, so far as can be ascertained, very much of a mosaic, dependent upon what needed reprinting for further supply and what did not. Hence, most of the non-primary later issuing consisted of a patchwork quilt of the remainders of primary printing, mixed in parts or volumes with various stages of secondary printing. This made for additional heterogeneity that is difficult to track and even more difficult to assess. It has similarly not been unknown for book-dealers of all subsequent eras to cannibalise imperfect or incomplete copies from different 'editions' or 'printing', themselves probably already a mixture of the kind referred to above, and further mix those in order to complete more nearly full copies from different backgrounds. The endless intermeshing of that situation needs no further elaboration, and applies equally to plates and to text.

The primary printing is itself variable according to the algal group concerned (and therefore to the outline colour used, aside from the infill washes) and to the difficulty or otherwise of rendering a 'natural' appearance for that particular alga. Some of the Rhodophyta printing was quite spectacularly successful as, to a lesser extent, was some in the other groups. Many of the laminate or broad-fronded brown algal illustrations are far from good, however, a fact which in all justice one has to accept that Harvey himself realised; an example is that of *Haliseris polypodioides* (pl. 19),* the natural coloration of which is notoriously difficult to capture—there is in the plate no hint of the yellowish-brown translucence/opacity that is normally met with in field material, the whole plant here being excessively biased toward the green. Many others suffer this same green excess; examples are *Dictyota atomaria* (pl. 1); *Elachistofeja attenuata* (27A); *Cladostephus verticillatus* (33); although *C. spongiosus*, 138, is rather better); *Sphacelaria scoparia* (37); *Myrionema leclancherii* (41); *Sporocchnus pedunculatus* (56); *Arthrocladia villosa* (64); *Stilophora rhizodes* (70); *Asperococcus compressus* (72); *Himanthalia lorea* (78); *Alaria esculenta* (79); *Pycnophycus tuberculatus* (89); *Padina pavonia* (91); *Dictyota dichotoma* (103); *Sargassum bacciferum* (109); *Sphacelaria filicina* (142); *Ectocarpus pusillus* (153); *Fucus nodosus* (158); *Fucus vesiculosus* (204); *Cystoseira ericoides* (265); *Fucus ceranoides* (271); *Laminaria longicuris* (339). These brown algae of larger aspect are not by any means the only ones to suffer from an extreme colour bias.

Many of the green algae and associated groups throughout the run of the *Phycologia* demonstrate plates with erroneous extremes of coloration, even where the primary plate version is involved. A good example of this error is the plate of *Bryopsis plumosa* (3), which has too much of a sea-green tinge, being naturally usually much brighter and with a more pronounced clarity of pigmentation in the yellow-green part of the band. *Cladophora refracta* (24) shows much the same problem, despite being referred to in the description as a 'brilliant yellowish green'. A degree of the same inaccuracy is manifest by the plates of all the following: *Codium adhaerens* (35A); *Ulva linza* (39); *Enteromorpha erecta* (43); *Cladophora macallana* (84); *Codium tomentosum* (93); *Bryopsis hypnoides* (119); *Cladophora hutchinsiae* (124); *C. diffusa* (130); *Ulva latissima* (171); *Cladophora pellucida* (174); *C. rupestris* (158); *C. laetevirens* (190); *C. fulcata* (216); *Enteromorpha ramulosa* (245); *Cladophora fracta* (294); *Vaucheria velutina* (321); *Enteromorpha compressa* (335). By contrast, many of the blue-green algae portrayed are quite acceptably coloured—as in *Lyngbya majuscula* (62); *Rivularia nitida* (68); *Calothrix pannosa* (76); *Rivularia atra* (239); *Microcoleus anguiformis* (249); *Calothrix confervicola* (254); *C. caespitula* (305); *C. semiplena* (309); *Lyngbya ferruginea* (311). Others (for example *Lyngbya (Hormotrichum) cutleriae* (336)) would require additional tinting to achieve near-natural coloration.

There are certain outstanding examples of colour illustration amongst the red algae of the primary version. This is particularly true of the filamentous forms, where the difficulties of providing the natural colour variation patterns across plants that are inherent to large flat, ribbon-shaped, strap-shaped or undulant fronds with complex continuous surfaces are not so pronounced. Even amongst these latter there are some very sensitively rendered illustrations that support the occasionally expressed contention as to Reeve's considerable talent as a

* Numbers quoted here represent those in the numerical order of issue, not those of the Synopsis.

colour printer, who would go to immense trouble and expense to obtain realistic results (J. D. Hooker to Harvey, letter of 6 May 1845, quoted in full earlier).

All or a significant part of plates of red algae in the *Phycologia* under the following names and numbers provide fine examples to support the above opinion of Reeve's taking pains; the symbols (f) and (br) stand respectively for filamentous and broader fronds. This represents, of course, only a small proportion of those examples that could have been selected from the many available.

Delesseria hypoglossum (pl. 2; br); *Callithamnion gracillimum* (5; f); *Kallymenia* (*Kalymenia*) *reniformis* (13; br); *Gracilaria polycarpa* (*multipartita*) (15; br); *Griffithsia devoniensis* (16; f); *Seirospora griffithsiana* (21; f); *Delesseria ruscifolia* (26; br); *Wrangelia multifida* (27; f); *Microcladia glandulosa* (29; f); *Spyridia filamentosa* (46; f); *Bonnemaisonia asparagoides* (51; f); *Rhodymenia laciniata* (121; br); *Callithamnion tetragonum* (136; f); *Ceramium acanthonotum* (140; f); *Laurencia obtusa* (148; f); *Stenogramme interrupta* (157; br); *Callithamnion borrieri* (159; f); *Polysiphonia urceolata* (167; f); *Rhodymenia jubata* (175; br); *Callithamnion turneri* (179; f); *Griffithsia secundiflora* (185; f); *Laurencia tenuissima* (198; f); *Dasya coccinea* (253; f); *Callithamnion pluma* (296; f); *Ceramium strictum* (334; f).

Other species amongst the Rhodophyta (red algae) are not well rendered, in many cases being far too biased towards the purple/violet, in others inaccurately coloured in various ways, blurred in detail, and/or often with poor morphological representation. Examples of these are also legion, but perhaps not so markedly so as are the better examples of art work in this context. A selection, personal in choice of course, is: *Odonthalia dentata* (pl. 34); *Rhomelala lycopodioides* (50); *Chondrus crispus* (63); *Delesseria sanguinea* (151); *Nitophyllum punctatum* (202); *Callithamnion arbuscula* (274); *Polysiphonia byssoides* (284); *Polysiphonia fastigiata* (299).

These examples are quoted from analysis of the primary version provided by a copy of the 3-volume numerical sequence bound as issued and not subsequently disturbed; by separate wrapped early parts that, almost by definition, contain the primary version of both text and plates; and from a 4-volume (resorted; systematic) copy of the complete work that textually—and therefore probably as to illustration—is wholly primary version.

Comparison of selected plates, from a 'New Edition', volume II (see Plate 10 for the form of the reissued title-page), that were clearly derived from later printing than the primary version and may well therefore have been printed for the 1871 issue as it was being prepared revealed generally deleterious changes. Printing in the main was greatly superior in the primary version; the lines were sharper, the colours mostly (but not always) more natural, the layering (wash) generally better aligned with the outline printing, the plant sections clearer and more carefully printed. Where parts of sections were differently emphasised for different purposes, they were commonly clearly so in the primary version, but often badly and generally obscurely over-coloured, blurred and smudgy in the 'New Edition' II—as, for example, in plate 85, fig. 9, where the primary version is beautifully clear, but the 'New Edition' represents a homogeneous splurge. Similar comparison was true for plates 34, 50 and 264, selected at random as appropriate further examples for the present analysis. A potential reason (over and above market-demand pressures) which is established as producing plate variation in at least two cases, is considered in section 2 (B) of the present Appendix (IV). From the tone of the evidence there presented, this could have been a more widespread source of significant difference.

The biggest overall problem, aside from colour variation and inconsistency, with almost all plates of all versions is one of cross-relationship of scale in the gross morphological sense, even given the size statements in the textual descriptions, providing some sort of basis for comparison. The realities of size comparison would have immeasurably complicated the situation for Harvey and his publishing associates, given the restrictions of paper size, space relations and continuous copy supply. It is a tribute to Harvey's grasp of the problems, despite the above, that the impressions given by the gross morphological renderings so frequently capture the essence of the plants through characteristics manifest in living relationships in the field.